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Clara Barton National Historic Site

Historic Structure Report

Clemson University



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Part: 1
Physical History /Condition Assessment

Volume
1



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Foreword to the Historic Structure Report

The 2004 historic structure report for Clara Barton National Historic Site is a collection of reports and documentation drawings produced between 1976 and 2002 as a three-volume set. Volumes 1 and 2 contain information typically covered in Part I: Developmental History of a Historic Structure Report as a single document. The reports in Volume 3 stand alone as independent documents. Together the set presents the ever-increasing knowledge gained about the property and reflects the changes in National Park Service's management of the site between the mid-1970s and early 2000s.

Volume 1, *Part I: Developmental History*, produced by Elizabeth Lampl in 2002, is the most thorough research to-date related to the development of the Red Cross House at Glen Echo, Maryland. Ms. Lampl uses newly available primary sources and previously completed reports to analyze and evaluate the architectural precedence for the building, its construction, and discusses its modifications. Her report describes the relationships among Miss Clara Barton, Dr. Julian Hubbell, the American Red Cross, the Chautauqua and amusement park promoters, and later building owners and how they influenced the property over time. A secondary emphasis of her research is Dr. Hubbell's role in the American Red Cross along with the appearance and use of his personal rooms in the house.

Volume 2, *Part I: Physical History and Condition Assessment*, produced in 1997 by Oehrlein and Associates Architects, as a draft document, records the condition of the building and recommends treatment for its preservation. Volume 2 describes the physical characteristics of the exterior and interior. This report contains the first set of drawings to show the chronology of the building's physical changes from 1891 to 1897. Also included are building floor plans that document the building in 1996. Technical evaluation of structural, electrical, mechanical, and protection systems and an analysis of the building's compliance with life and safety codes at that time is presented. Color photographs of features and conditions are reproduced in this volume because they should prove a valuable reference in the future. Refer to Ms. Lampl's Executive Summary for further explanation of Volumes 1 and 2.

Volume 3, *Collection of Documentation, Investigation & Treatment Reports 1976-2002* contains supplemental documents ranging from the first structural analysis of the building's framing system and the 2002 *Interior Finishes Analysis: Dr. Hubbell's Room and Clara Barton's Sitting Room* by National Park Service architectural conservator Barbara A. Yocum to drawings from the late 1970s for proposed restoration of the front façade and two sets of Historic American Building Survey records. This is not a comprehensive collection of building-related research or technical reports. Other documents exist such as the 1977 historic structure report written by historian Charles Snell. Reports reproduced in Volume 3 are selected because, despite their useable content and the quality of information, they are likely to be forgotten due to their age, abbreviated size, or the few number of originals printed. Reprinting of these items will keep the information available for another generation of researchers and managers.

Rebecca L. Stevens, A.I.A.
Chief Historical Architect, National Capital Region

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Interior Elevation Drawings

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Window Reproduction and Documentation Drawings

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Addendum to Clara Barton House

Glen Echo, Montgomery County. Maryland. MD-300. 17 Sheets.

1976 Historic American Building Survey

Drawn, David D. Ballard, Beverly J. Sanchez, Michael D. Snyder.

Clara Barton House

Glen Echo, Montgomery County. Maryland. MD-300. 9 Sheets.

MANAGEMENT SUMMARY

EXECUTIVE SUMMARY

Research done for this report: This report is intended to update the Historic Structure Report prepared for the Clara Barton National Historic Site in October, 1977 by Charles W. Snell. This report is to some extent based on that earlier report and its addendum. Additional information has been gained through an extensive examination and analysis of the building fabric supplemented by limited additional historical research conducted at the site. Sources referenced at the site include the Historic Grounds Report, the Historic Furnishings Report/HFC, the justification for "A Clara Barton National Memorial to be created at Glen Echo"¹, the National Register Nomination, the restoration files, and the historic photograph collection.

Major research findings: Diary entries, correspondence and contemporary news accounts provide a wealth of information about the history of the Clara Barton National Historic Site. Unfortunately, there are gaps in the record and some of the information is contradictory. Myths, fabrications and inaccuracies have been woven into the documentation of Miss Barton and her Glen Echo house. An attempt has been made here to include only information that can be substantiated. This intent is complicated by the limited scope of this project that precludes the verification of existing documentation, the examination of many of the available primary sources, or the searching out of new information.

As a prominent figure in American history, much has already been written about Clara Barton, the American Red Cross and its Glen Echo headquarters building. The major research findings of this report, given the limited opportunity for research, are presented as questions relating to areas that have not been adequately explored in the existing literature. The answers may ultimately be unattainable, but additional research is warranted.

The primary question that remains unanswered is the exact origin of the building at the Clara Barton National Historic Site (referred to hereafter as the Clara Barton House). Clara Barton herself perpetuated the belief that this building was the reconstructed Johnstown Hotel. She claimed that after this emergency shelter was no longer needed to house the victims of the flood in Johnstown, Pennsylvania, it was dismantled, shipped to Washington, D. C. and reassembled at Glen Echo. Ample documentation exists to prove that the material from a Johnstown Hotel was in fact dismantled and delivered to Washington, DC. However, if Miss Barton was accurate in her assertion that the Johnstown Hotel was constructed of hemlock, it is unlikely that the Clara Barton House is the Johnstown Hotel reincarnate since the Clara Barton House is constructed primarily of pine and only a few hemlock boards have been found in the building's structure.

Sometime after Miss Barton's death, Edwin Baltzley, the developer of the Glen Echo site, wrote that the materials salvaged from the Johnstown Hotel and brought to Glen Echo, "...were rough hemlock boards, not many of them, full of nails, which to plane, prepare and fit into the building cost more than new, finished and appropriate lumber. But her wish was law, and those cherished "boards" were woven into the structure as she desired." Baltzley's statement that there were "not many" boards tends to conflict with the documentation that shows that nine wagon loads of lumber from the Johnstown Hotel were transported to Kalorama Heights, the site where the building was initially to have been

located. It is, however, not known if all of this lumber was transported from Kalorama Heights out to Glen Echo.

Baltzley's statement does buttresses his claim that he donated not just the land, but the labor and the materials for the Red Cross Headquarters building at Glen Echo. It also tends to corroborate Miss Barton's statement that the Johnstown Hotel was built of hemlock. If the Johnstown Hotel was, in fact, constructed of hemlock, then the building at the Clara Barton National Historic Site cannot be the Johnstown Hotel. However, in an 1889 magazine article Miss Barton stated that the Johnstown Hotel "...was built inside of rough pine lumber..." a description that also applies to much of the Glen Echo structure. Given these ambiguities, it may never be possible to definitively determine the origins of Clara Barton's Glen Echo house.

Another interesting, and unanswered, question that further clouds the building's origins is the suggestion that both the Johnstown Hotel and the Glen Echo Red Cross Headquarters were actually railroad hotels. According to this thesis, railroad hotels, a sort of prefabricated building used by the railroads during the mid-nineteenth century to provide "instant" accommodations along rail lines as they were being constructed, were later donated to the Red Cross. Although sources supporting this theory were reported to exist, these sources have never been provided to the National Park Service (NPS).² This is an area that warrants further investigation.

Also uncovered during the preparation of this report was the claim that a newspaper engraving exists that accurately depicts the appearance of the 1891 stone facade of the Glen Echo Red Cross Headquarters building. Some Washington D.C. newspapers from 1891 were unsuccessfully searched for the engraving of this otherwise undocumented elevation.³

To clarify the ambiguities regarding the origin of the building and provide documentation of the appearance of its original facade, additional research on these subjects is clearly warranted.

Major issues identified in the contract: The purpose of this report is to provide the information necessary for the National Park Service (NPS) to undertake ongoing restoration and preservation efforts, make long term treatment plans, and to better manage the Clara Barton National Historic Site. The emphasis of this report is on the house itself.

Of specific concern to the National Park Service is the identification of significant historic materials, features, areas or parts of the house and recommendations for their treatment and preservation. Also of concern is the analysis of the existing structure for compliance with the requirements of all applicable state and local codes. In addition, an evaluation of the safety, condition and load bearing limits of the building's structure has been requested.

Finally, the impact of current building uses and existing management plans on the integrity of the structure and historic fabric will be assessed, as will the impact of compliance with human safety, energy conservation and universal accessibility regulations. Improvements to security and other systems will be discussed and mitigation for adverse impacts will be recommended.

Recommendations for treatment or use:

This section summarizes both the recommendations established in the Historic Furnishings Report (HFR) prepared by the Harpers Ferry Center in 1983 (See Appendix C), and the recommendations that are based on the information uncovered in the preparation of this Historic Structures Report (HSR). Recommendations are discussed in greater detail in the appropriate sections of Part 2 of this report.

Generally, the site should continue on the path established by the HFR. Many of the recommendations made in that report remain valid and should continue to be implemented.

These include limiting tour sizes to 15 and being sure that all NPS and volunteer staff are familiar with the fire evacuation plan and the GWMP Disaster Plan.

HFR recommendations regarding environment, light, dust, insects/rodents, and conservation considerations all remain valid and should be followed.

The recommendations regarding fire and security require some revision. A fire sprinkler system is strongly recommended in addition to the other recommendations of the HFR. Since the house is no longer used as NPS quarters, the security system is in use. This is important since there is no longer anyone present in the house overnight.

Architectural Recommendations: Rooms currently on exhibit should remain on exhibit. However, the documentation that is available for the restoration and reconstruction of additional rooms for display and interpretation, as recommended in the HFR, is minimal. Preparation of additional rooms for exhibit will require some conjecture. Whether or not this is acceptable will have to be an internal Park Service decision.

Current offices and other rooms that are not used for display may be used for offices or other NPS uses. Care should be taken to preserve all significant historic fabric in these rooms

On the exterior of the building, regular maintenance should be increased. Much of the paint is deteriorated and this has allowed some of the wood trim and siding to begin to deteriorate. Two paint related problems appear to be inadequate surface preparation, which causes the paint to peel and flake off, and mildew, which also breaks down the paint. Mildew can be reduced or eliminated through the addition of a mildewcide to the paint.

Exterior maintenance items are discussed in greater detail in Part 2 of this report.

The two "blind" windows in front of the safe should be restored and the front porch should ultimately be removed and the original porch reconstructed. The existing porch, however, currently serves as the visitor waiting area, and programmatically it may be best to leave it in place until a decision is made regarding the construction of visitor center elsewhere on the site.

Clara Barton National Historic Site

On the interior, the fiberboard wall finish in exhibit rooms should be removed to reveal the original wall materials.

Structural Recommendations: Except for the inadequate load bearing capacity of the floor structure (which can to a large extent be managed programmatically), the only structural recommendation is the replacement of the header on the first floor beneath the stairs.

Mechanical: The concept behind the existing HVAC systems should be retained, although some system components will require upgrading or replacement. In addition, ventilation should be installed to help control humidity and lower peak summertime temperatures.

Electrical Recommendations: Electrical tests have established that the wiring in some circuits requires replacement as do the circuit breakers in the existing panels.

Plumbing Recommendations: A new copper domestic water system is recommended with a new backflow preventer at the connection with the HVAC cold water makeup feed.

Fire Suppression Recommendations: A fire suppression system is clearly warranted, both for life safety and protection of the historic building.

Recommendations for Compliance with Regulations: To the extent possible, the house should be brought up to contemporary standards of accessibility, life safety and energy efficiency.

For a more detailed discussion of any of these topics, see the appropriate sections in Part 2 of this report.

Endnotes

1. Full title, "The Clara Barton National Memorial to be created at Glen Echo, Washington, D. C. near the Clara Barton Red Cross home. The memorial building to be the executive offices of a national work for the prevention of physical suffering in the United States and to have a branch in each county to be known as a Clari-Bartonry; Clara Barton's Glen Echo home to be preserved sacred to her memory," n.d., unpublished. A copy is on file at the Clara Barton National Historic Site. It is also referred to as the "Baltzley Manuscript".
2. **REVISE-CLBA** Statement of Joe Burns, National Park Service museum technician and park ranger at CLBA from May, 1981 through May 1995.
3. **REVISE-CLBA** Statement of Joe Burns, National Park Service museum technician and park ranger at CLBA from May, 1981 through May 1995. This engraving was offered for sale to the NPS by Richard Cook but the asking price was not acceptable. Subsequent attempts to locate the engraving at local libraries have proven fruitless.

ADMINISTRATIVE DATA

Name: Clara Barton National Historic Site
Also known as:
The Clara Barton House
Red Cross Headquarters

Location: George Washington Memorial Parkway
5801 Oxford Road
Glen Echo
Montgomery County, Maryland 20812

UTM: Zone / Easting / Northing
18 314520 4315090

Latitude: 38 Degrees 56 Minutes 5.24 Seconds, North
Longitude: 77 Degrees 6 Minutes 55.5 Seconds, West

Proposed Treatment: The Clara Barton National Historic Site was established by H. R. 13157, presented on September 13, 1974. This bill, in part, states: "Clara Barton, the primary figure in the founding of the American Red Cross, resided in the house for the last twenty years of her life.¹ From 1897 to 1904 the house was the National Headquarters of the American Red Cross of which Miss Barton was president....Enactment of this bill would implement the recommendation of the Advisory Board [on National Parks] and would constitute a positive step toward our goal of a National Park System which is balanced and complete in its representation of the Nation's heritage."

The report that accompanied this bill further states:

"...the principle purpose of this historic site is, of course, to tell the early story of the American Red Cross through the interpretation of the life and times of its founder--Clara Barton. She was a remarkable person who dedicated her life and energies to help others in times of need--both at home and abroad, in peace-time as well as during military emergencies. Glen Echo was her home for the last 20 years of her life and this structure illustrates her dedication and concern for those less fortunate than herself."

Toward these ends, the exterior, the site, and significant interior spaces of the Clara Barton National Historic Site should, where possible, be restored

¹H. R. 13157 erroneously states that Clara Barton lived at Glen Echo for the last 20 years of her life. Miss Barton actually spent the last 15 years of her life at Glen Echo, 1897 to 1912.

Clara Barton National Historic Site

to their appearance during the established period of significance. Less significant spaces and spaces lacking sufficient documentation can be used as offices for NPS personnel.

Cultural Resource Data: The Clara Barton National Historic Site is located within the George Washington Memorial Parkway and was listed in the National Register of Historic Places as a National Historic Landmark on January 12, 1965.

The established period of significance is 1897 to 1912. During this period, the house served as Miss Barton's primary residence. From 1897 to 1904 Miss Barton served as the President of the American Red Cross, and the Glen Echo building served as the national headquarters for the organization.

The National Register Nomination States: "The property is significant as the home of Clara Barton from 1897 to 1912, with special emphasis on the years 1897-1904 when it was also executive headquarters of the American Red Cross. Miss Barton's personal direction of its 1897 remodeling made the house uniquely hers in design as well as occupancy."

Recommendations for Documentation, Cataloging and Storage: The Clara Barton National Historic Site already contains a well established library. Since no additional research was conducted for this report, it draws primarily on sources that are already available at the site. No new documentary sources were uncovered in the preparation of the report.

Additions to the site library as a result of this HSR will be the report itself and the photographs taken to document the current building conditions. The photographs should be added to the site's photograph collection. In addition to the prints and the negatives, photographs taken for this report will be submitted on CD-ROM. The negatives, the CDs and the original copy of this report should be stored away from the site, in a location where they will be protected from fire.

PART 1. DEVELOPMENTAL HISTORY

PART 1. DEVELOPMENTAL HISTORY

A. HISTORICAL BACKGROUND AND CONTEXT

1. HISTORICAL/CULTURAL SIGNIFICANCE

This house is significant for its association with Clara Barton (see Figure 1), one of the best known humanitarians in American history. Her accomplishments are impressive by any standards, but when viewed in the context of the era in which they were accomplished, they stand out as exceptional.

Clara Barton lived during a time when women were not allowed to vote and had very limited career opportunities. Although not an fervid suffragist, Clara Barton was a member of the National American Woman Suffrage Association and she lent her support to the cause. She believed, however, that the best way to change attitudes toward women was through action and example.

Living this philosophy, Miss Barton became one of the first women to hold a civil service position with the United States government. Later, during the Civil War, she worked on the battlefields, sometimes side-by-side with army surgeons. Throughout her life she challenged sexual stereotypes and did much to further the cause of women's rights.

At the same time, in her fight to convince the federal government to ratify the Geneva Convention, the document that served as the basis for the International Red Cross movement, she had to battle the traditional isolationism of the American government. It wasn't until 1882, almost 20 years after the drafting of the Geneva convention, that the American government finally signed the treaty. This was largely the result of Miss Barton's persistence and her unwillingness to accept the prevailing attitudes of the day.

Having secured recognition for the principles of the Red Cross Movement in the United States, Miss Barton continued to push the boundaries of contemporary attitudes and, in 1884, secured the passage of the "American Amendment" at the conference of the Red Cross in Geneva, Switzerland. This amendment broadened the scope of Red Cross activities to embrace not only the victims of war, but the victims of peace-time disasters as well.

Clara Barton and the Red Cross Connection

In April 1861, the Sixth Massachusetts Regiment arrived in Washington with men wounded in skirmishes with Southern sympathizers in Baltimore. From this time on, Clara Barton spent little time at her desk at the Patent Office, devoting her time and energies to the care of wounded soldiers. Her friends at the Patent Office did her work for a time, insuring her of an income. Throughout the war, she gave aid and comfort to those in need. Although she was not associated with either the Sanitary Commission or the Christian Commission, she cooperated with them and exchanged supplies

when the need arose. In 1864, she was superintendent of nurses for the Army of the James, under the authority of General Benjamin Butler.¹

Miss Barton did not cease her labors after the surrender at Appomattox. With numerous personal requests from all parts of the country asking for information about missing soldiers, she moved to Annapolis, Maryland, on President Lincoln's advice. Here she based her search, from 1865 to 1869, for 20,000 missing men. Her success was such that the Congress voted her \$15,000 in March 1866 to compensate her for her work.² Even this immense task did not diminish her zeal to be as helpful as possible. During this time, she accompanied an army agent to Andersonville, Georgia, where she worked for months at the unpleasant task of locating and marking graves in the first National Cemetery.

Clara Barton's speaking abilities came to the fore[front] after the Civil War when she related her wartime experiences throughout the North. Before long, however, the overwork of many years caught up with her, and she left for Europe to regain her health. While she was living in Switzerland, members of the "International Committee of the Red Cross" visited her to ask why the United States would not join in signing the Geneva Convention of 1864. When the Franco-Prussian War broke out, Miss Barton worked as before, giving relief to the wounded on both sides of the conflict. From these experiences abroad, as taxing as they were, grew the career that became the major contribution of her life, the establishment of the American Red Cross.

Clara Barton returned to the United States in 1873, in very poor health. In 1876, by now a nervous invalid, she moved to Dansville, New York. After she left the sanatorium in Dansville, she bought a home in the town. As she recovered her health, she wrote to her European friends who were members of the International Red Cross. They suggested that she work towards American participation in the Red Cross movement. The traditional American foreign policy of isolationism had so far been dominant. In 1866, the Reverend Henry W. Bellows and others who had been active in the Sanitary Commission founded the American Association for the Relief of Misery on the Battlefields, in order to promote United States approval of the Geneva Convention. Unable to persuade the government, Bellows had died in 1871.³ Now Miss Barton directed her efforts towards the same end. She managed to educate the public by enlisting influential people and by publishing numerous articles. When President Garfield took office in 1881, his Secretary of State, James G. Blaine, looked on the international agreement with interest. Miss Barton's influential group of supporters incorporated themselves in July 1881 as the National Society of the Red Cross. The results were forthcoming. On

March 1, 1882, Chester A. Arthur secured Senate confirmation of the treaty. Soon, local societies began to spring up in New York State and to extend relief where needed.

The successful efforts of Clara Barton in gaining official support for the principles of the International Red Cross launched her into Red Cross activities for the next 23 years. Miss Barton was already well experienced in domestic American relief activities when she was designated to represent the United States at the International Conference of the Red Cross at Geneva in September 1884. While here, she persuaded the Conference to adopt the "American Amendment," which resolved "that the Red Cross societies in time of peace engage in humanitarian relief work analogous to the duties devolving upon them in periods of war." At the adoption of the resolution, the Conference stated unanimously that "... in obtaining the accession of the United States of America to the Convention of Geneva Miss Clara Barton has well merited the gratitude of the world."⁴

Association with the Johnstown Hotels

In one of its early peacetime relief efforts, the Red Cross provided emergency shelter to victims of the 1889 flood in Johnstown, Pennsylvania. Two years later, when the new Red Cross Headquarters was built at Glen Echo it was either constructed of material salvaged from one of the Johnstown emergency shelters, or its design was strongly influenced by these earlier structures

The Johnstown Red Cross Hotels were constructed in July of 1889 approximately one month after the flood that destroyed the city of Johnstown, Pennsylvania. The first shelter, known as the Locust Street Hotel (see Figure 2) was built entirely of wood in only 7 days. The "hotel" utilized lumber "in full length and with little nailing that it might be easily and quickly taken down".⁵ Documentation indicates that by November of 1889 the emergency housing in Johnstown was no longer needed.⁶ The emergency shelters were dismantled and some of the material from them was shipped to Washington, D.C. where it was put into storage.⁷

On June 8, 1890 Miss Barton purchased four adjacent undeveloped lots in Kalorama Heights in northwest Washington, D.C. for use by the Red Cross. Receipts over the next three weeks document the transfer of the material from the disassembled Johnstown emergency shelter to the new site on Kalorama Heights.⁸

On July 18, 1890 she wrote a friend:

Mr. McDowell is here and they have today "broken ground" for the putting up of a Johnstown House on a spare lot of ours in "Kalorama Heights". It is to be used as a warehouse or storehouse which we greatly need and we shall enjoy it--all the more for the association of its first service with the present. It will be the "Locust Street House" we shall reproduce as being the first dwelling put up entire and new after the [Johnstown] flood.⁹

In an August 3rd letter she states:

The Dr. [Dr. Hubbell] must return soon, for he is overseeing the building of a rather temporary residence for us on some new lots I have on "Kalorama Height",...We hope to get set here this autumn.¹⁰

These receipts and letters clearly indicate Miss Barton's intent to reconstruct the Locust Street Hotel in Washington, D.C. for Red Cross use. In addition, another letter states that "We shall reproduce or rebuild one of our Johnstown Hotels, build another fair size house, and a barn..."¹¹. The Johnstown Hotel, a building specifically designed to be moved and reconstructed, could be quickly assembled on the new site to serve as the "rather temporary residence" while the other buildings were being constructed.

Despite the fact that site work was performed at Kalorama Heights in preparation for construction, it appears that no Red Cross buildings were ever constructed there.

Association with the National Chautauqua of Glen Echo

Before any buildings were erected at the Kalorama Heights site, Miss Barton, a prominent figure in Washington society, had occasion to meet Edwin Baltzley. Baltzley was a real estate developer, who, along with his brother Edward, was developing a residential community and a National Chautauqua¹² in Glen Echo, Maryland.

Eager to have the name and reputation of the American Red Cross associated with his new development, Baltzley offered to donate a parcel of land in his new development to the Red Cross if Miss Barton would locate her headquarters there. He also agreed to donate the labor for the construction of the building.¹³

The Baltzley's benefitted immediately from the use of Red Cross field equipment to house and feed their work crew as they built the Red Cross Headquarters and the buildings of the new Chautauqua assembly. They also envisioned using the multi-roomed headquarters building to house and feed visitors to Glen Echo that first summer since the accommodations in the area were inadequate to meet the demands of the Chautauqua visitors.

In a March 26, 1891 letter to her nephew, Stephen E. Barton, Miss Barton explained:

We have clerred [sic] with Mr. Baltzley, have taken our lots, and will proceed at once to put up our "Johnstown House"; he [Baltzley] giving the land and insisting upon bearing all the cost of putting up the building, moving out the lumber and all, and is concerned as we could be to have it done and only for a miserable little fall of snow since last night, the teams would have been out at Kalorama today getting the first of the lumber.

She continues:

The Dr. is making up his plan of building; which will be like our houses in Johnstown only a little better made; as you remember there is at present not a vestige of shelter, nor a place to get a meal of food on the premises [of the National Chautauqua], and Mr. Baltzley sees that a hundred feet [sic] dining room and twenty sleeping rooms would not come amiss, as soon as they could be had.¹⁴

A letter of April 22, 1891 further explained:

They [the Baltzley brothers] insisted that I should except [sic] ground for a Hd. Qtrs. and put up what I would for the first summer meeting and opening in June [of the Chautauqua amphitheater]. You know we have the lumber of the "Johnstown Hotels" and their furnishings, which we have designed to put out at Kalorama last year, but failing to do so, it lay there and it [?] and when the Trustees & Committee [of the Glen Echo Chautauqua] found what we had there, they did not wait a day and would not even consent that we remove the lumber, but sent their teams and took it over to the new grounds and Dr. Hubbell is there putting up the building as fast as possible...¹⁵

Regarding the use of Red Cross equipment she said in the same letter:

...our tents and wooden shanties are feeding and housing the rest of the workmen on the great buildings.¹⁶

And in another letter, regarding the same situation, she wrote:

We are putting up one of our Johnstown Houses at Glen Echo some eight miles away. The workmen with the Dr. [Hubbell] at the headquarters have had to have food from here [Washington, DC] as there is no shelter there till we make it.¹⁷

2. ARCHITECTURAL SIGNIFICANCE

Despite its apparent association with the emergency shelters that the Red Cross utilized to house victims of the Johnstown, Pennsylvania flood, the building at the Clara Barton National Historic Site is essentially vernacular in character and lacks any real architectural significance.

Endnotes

1. The importance of Miss Barton's position with the Army of the James may have been exaggerated. Elizabeth Brown Pryor in her book, Clara Barton, Professional Angel, states that "Whatever [General] Butler told her unofficially, no such position was ever created, recorded, or officially approved by the War Department."

Pryor, Elizabeth Brown, Clara Barton, Professional Angel, University of Pennsylvania Press, 1987, p. 127.

2. See: Gage, Francis D., "Relics of Andersonville", New York Independent, Jan 25, 1866; and Frances d. Gage, "Petition to the Senators and Representatives of the Thirty-Ninth Congress", N.D. [February 1866], copy in the Clara Barton Collection, Library of Congress.

3. Bellows death was not the result of his inability to persuade the government to ratify the Geneva Convention.

4. Stephen H. Lewis, "Clara Barton House, Glen Echo, Maryland: Report Prepared for The National Survey of Historic Sites and Buildings, Theme XXIX: Social and Humanitarian Movements," US Department of the Interior, National Park Service, National Capital Region, August 1964, p. 8.

5. Clara Barton Papers. Library of Congress, Letter Book No. 10, Pt. 2, Ser. 2. p. 689.

6. Letter from the Most Reverend Cortlandt Whitaker, Episcopal bishop of Pittsburgh to the Red Cross, November 23, 1899. (p. 19)

7. Letters, Hubbell to Barton, Dec. 12 and 14, 1889. Clara Barton Papers, Library of Congress. Cont. 27, Ser. 1. and Bills of Lading, Clara Barton Papers, Library of Congress, Box 77, Ser. 1, and Jan. 6, 1890 bill from J. Vanderbuilt, Library of Congress, Clara Barton Papers, Cont. 27, Ser.1.

8. Receipted bill, Clara Barton Papers, Library of Congress, Box 32, Ser. 2.

9. Clara Barton Papers, Library of Congress, Letter Book No. 10, Pt. 2, Ser. 2, pp. 850-851.

10. Clara Barton Papers, Library of Congress, Letter Book No. 11, Pt. 1, Ser. 2, pp. 329-330.

11. Clara Barton Papers, Library of Congress, Letter Book No. 10, Pt. 2, Ser. 2., p. 853.

12. The Chautauqua movement was founded in 1874 as the Fair Point Sunday School Assembly by the clergyman John Heyl Vincent and the businessman-inventor Lewis Miller near Chautauqua, N.Y. It soon developed a curriculum that ranged from temperance lectures to contemporary science courses. In 1881 it introduced the first successful correspondence education program in America and between 1883 and 1897 it conducted a summer school program under the direction of William Rainey Harper that attracted thousands. Initially a summer adult education program, it expanded into a movement

dedicated to annual summer educational and recreational assemblies. The Baltzley brothers hoped to establish a Chautauqua assembly at Glen Echo. Copyright 1995 by Grolier Electronic Publishing, Inc.

13. "The Clara Barton National Memorial to be created at Glen Echo, Washington, D. C. near the Clara Barton Red Cross home. The memorial building to be the executive offices of a national work for the prevention of physical suffering in the United States and to have a branch in each county to be known as a Clari-Bartonry; Clara Barton's Glen Echo home to be preserved sacred to her memory," n.d., unpublished, p. 29. A copy is on file at the Clara Barton National Historic Site. It is also referred to as the "Baltzley Manuscript".

14. Clara Barton Papers, Library of Congress, Letter Book No. 11, Pt. 2, Ser. 2, pp. 576-578.

15. Clara Barton Papers, Library of Congress, Letter Book No. 11, Pt. 2, Ser. 2, pp. 605-608.

16. Clara Barton Papers, Library of Congress, Letter Book No. 11, Pt. 2, Ser. 2, pp. 605-608.

17. Clara Barton Papers, Library of Congress, Letter Book No. 11, Pt. 2, Ser. 2, pp. 599-600.



Figure 1: Clara Barton, founder of the American Red Cross on the porch of the Clara Barton House, Glen Echo, Maryland



Figure 2: General view of the Locust Street Hotel, 1889. Note how the central, raised section of the roof provides room for a series of clerestory windows.

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B. CHRONOLOGY OF DEVELOPMENT AND USE

1. 1890 -1891: EVENTS LEADING UP TO THE CONSTRUCTION OF THE NEW RED CROSS HEADQUARTERS BUILDING AT GLEN ECHO

- June 25-28, 1890 Nine wagon loads of building materials (presumably including the lumber from the Johnstown Hotel) are moved out to the Kalorama Heights site.¹
- July 18, 1890 Ground is broken for the new Red Cross Headquarters at Kalorama Heights.² At the same time Dr. Hubbell is attempting to assemble a construction crew utilizing workers who had helped assemble the emergency shelters in Johnstown.³
- December 5, 1890 Payment is made to the general contractor for work performed on the Kalorama Heights lot, primarily grading and clearing, for the period from July 25 through October 3, 1890.⁴
- March 26, 1891 In a letter to her nephew, Miss Barton explains that they have made a deal with Edwin Baltzley for the site at Glen Echo and that Dr. Hubbell is "making up his plan of building".⁵
- April, 1891 Construction at Glen Echo begins.⁶
- June 7, 1891 Construction is being completed and preparations for the move out to Glen Echo will begin the next day.⁷
- June/July, 1891 Sometime during this period, Miss Barton moved both her residence and the headquarters of the Red Cross out to Glen Echo.

2. APPEARANCE OF THE HOUSE IN 1891

Little is known about the appearance of the house in 1891 as it was originally constructed. From correspondence and diary entries we do know that in 1890 Miss Barton intended to rebuild a disassembled Johnstown Hotel (see Drawing 1 and Figure 2) on her Kalorama Heights properties. These plans changed in the spring of 1891 after Miss Barton was approached by Edwin Baltzley, developer of the new National Chautauqua in Glen Echo, Maryland and offered a free parcel of land there.

In correspondence, she refers more than once to the construction of "a Johnstown House" at the Glen Echo site emphasizing her intention to reconstruct the earlier building. However, the notion that the Johnstown Hotel was reconstructed in Glen Echo is contradicted by Baltzley who later stated that most of the lumber shipped down from Johnstown was too deteriorated to be used.

What the building looked like originally is difficult to determine. No drawings or photographs of the original Red Cross Headquarters building have been located, however, a contemporary newspaper account gives the following description, "...the front of the Red Cross Building and the great red brick cross deep set in the gray stone facade can be seen as far as the building itself....The interior consists of a wide hall draped in the flags of all nations which have been presented to Miss Barton.... Flanking this hall are the large airy bedrooms and pleasant sitting rooms..."⁸ A later newspaper account corroborates the description of the front elevation of the building; "...there was a facade of stone with a huge red cross, resplendent above the arched doors, forming an entrance suggestive of a cathedral..."⁹

From the above accounts, we know that the building had a stone facade. Aside from the brick cross and the arched doors we do not know what this facade looked like. Except for the facade, the vault and the stone foundation piers, the remainder of the house was of wood frame construction.

Because the Glen Echo site sloped downhill toward the back of the building, the foundation piers would have been approximately three feet high at the front of the building and nearly ten feet tall at the rear. These piers, constructed of the same stone as the front facade, were irregularly sized and spaced. The space beneath the house was unexcavated and was not enclosed.

The three wood framed exterior walls appear to have been sheathed but not sided, since diary entries from 1897 describe the purchase and installation of siding. The sheathing is composed of rough pine boards installed vertically over the 2 x 4 stud framing of the perimeter walls much like the construction of the Johnstown shelters.

The fenestration on the side elevations probably consisted of irregularly spaced six-over-six double-hung sash. The southwest (rear) elevation may have had paired six-over-six double-hung sash.¹⁰

As originally constructed, the building probably had a complicated roof line. Unlike the simple monitor roof of the Johnstown Hotels (see Figure 2) the central roof of the Clara Barton House was raised in three places to create three third floor rooms. These three raised areas interrupted the low,

shallow gable roof that ran between the raised areas. This lower gable roof represented the roof line that the building would have had if the third floor rooms had not been added. The two sections of the raised roof located near the front and the back of the building were given simple shallow gables that echoed the lower gable roof. The roof above the central room received a pyramidal hipped roof.

The original roofing material is not known. NPS research and physical investigation suggests that asphalt impregnated felt was the original roofing material.¹¹

On the interior, the original floor plan is not known (see Drawings 2, 3, 4 and 5). Since the stud walls running the length of the building are a function of the building's structure, they were certainly a feature from the beginning, however, the division of the spaces within these three structural bays cannot be determined. Physical evidence suggests that the interior stud walls were covered on the center hall side with vertical boards. On the other side, the studs were probably initially left exposed. The walls that separated the rooms were almost certainly vertical board partitions.

As explained above, the room layouts in Drawings 2, 3, 4 and 5 are almost entirely conjectural. They are extrapolated from the current locations of what are believed to be remaining original partitions. The first floor rooms may have been smaller than those shown and they may have been separated by closets like those shown on the second floor. The configuration of the small second floor rooms was suggested by the pattern established by the remaining walls and closets. It is possible that not all of the rooms were separated by banks of closets. What happened at the front and the rear of the center hall can only be guessed. The location of the stairs is based on the Diary entry of November 15, 1897 which says, "Decide to remove the stair way & the stained glass window 6 feet west in order to enlarge the second floor front room and gain a library." This description roughly places the original stair adjacent to the back wall of the vault.

3. 1891-1897: EVENTS LEADING UP TO THE RENOVATION OF THE RED CROSS HEADQUARTERS BUILDING AND MISS BARTON'S PERMANENT RELOCATION TO GLEN ECHO

August 1, 1891	Clara Barton and Dr. Hubbell leave Glen Echo on a three month trip. ¹²
December, 1891	Miss Barton states that she has "left her Country seat [Glen Echo] for the winter," ¹³ and taken up residence in a Washington, D.C. hotel leaving Mr. McDowell, one of her employees, to live at Glen Echo. ¹⁴
June, 1892	Miss Barton moves both her residence and the Red Cross headquarters out of the hotel where she has spent the winter and spring, relocating them to the General Grant Mansion in northwest Washington D.C. ¹⁵
June 6, 1892	Miss Barton makes arrangements to move her household from Glen Echo back to Washington, D.C. ¹⁶
June 8, 1892	Two teams are loaded and move "lumber, chairs, tables, cupboard, range, plumbing things, etc..." from Glen Echo to the General Grant Mansion. ¹⁷
June 16, 1892	Miss Barton is concerned about the situation at Glen Echo stating "I am <u>sure</u> all is not right nor safe there." ¹⁸
June 18, 1892	Miss Barton visits Glen Echo to find her caretaker, Mr. McDowell, has taken in boarders who have stolen much of the property that remained at the house. ¹⁹
June 20, 1892	Efforts are made to recover the stolen property. ²⁰
November 23, 1892	Miss Barton reports to her insurance agent that the Glen Echo house has "at the moment no occupant". ²¹
May 5, 1893	Materials are packed and shipped out from the Glen Echo building. ²²
August, 1893	Miss Barton and friends picnic at Glen Echo. ²³
June and July, 1895	Miss Barton spends the month between June 20 and July 20 at Glen Echo where she states " we have gone through every box, barrel, and parcel, put all in the sun, assorted [and] repacked..." ²⁴
December 6, 1896	Clara Barton and George Pullman visit Glen Echo to find that it has been burglarized (a fairly common occurrence). ²⁵

- December 10, 1896 Apparently in response the discovery of the latest burglary, arrangements are made to have the mother-in-law of Emma Jones, Miss Barton's housekeeper, live at Glen Echo as a caretaker.²⁶
- December 15, 1896 During the week, Emma Jones' mother-in-law moves to Glen Echo.²⁷
- February 3, 1897 George Pullman notifies the landlord of the General Grant House that Miss Barton and the Red Cross will vacate the property by the end of the month.²⁸ The headquarters will again be moved out to Glen Echo.
- February 6, 1897 Miss Barton and staff begin packing in preparation for the move to Glen Echo.²⁹
- February 10, 1897 The first wagon loads of goods are transferred out to Glen Echo.³⁰

4. 1897- 1898: THE RENOVATION OF THE RED CROSS HEADQUARTERS

- March 5, 1897 Alterations begin.³¹
- March 9, 1897 The move out to Glen Echo is completed.³²
- March 10, 1897 A mason comes to the site to consult on construction of chimneys and changes to vault.³³
- March 11, 1897 Carpenters hired.³⁴
- Crew begins clearing lumber from the "basement" beneath the house.³⁵
- March 13, 1897 Arrangements made to visit a salvage yard to search for material useful in the renovation work.³⁶
- Doors are created interconnecting the two Red Cross offices and the dining room.³⁷
- Existing outhouse replaced.³⁸
- One of the two carpenters hired on March 11 is retained permanently.³⁹
- March 14, 1897 Building material purchased at salvage yard.⁴⁰
- March 15, 1897 Demolition of the stone facade begins.⁴¹
- Doors (those purchased yesterday?, see endnote 39) are fitted in place.⁴²
- The new outhouse is being finished.⁴³
- March 16, 1897 Building materials are delivered.⁴⁴
- Demolition of the stone facade continues.⁴⁵
- A new window is created opening into one of the Red Cross offices.⁴⁶
- The approach to the new outhouse is completed.⁴⁷
- A platform at the trolley track is constructed.⁴⁸
- March 17, 1897 More building material is delivered.⁴⁹
- Preparations are made for chimney construction.⁵⁰

- March 18, 1897 Preparations for chimney construction continue.⁵¹
- Demolition of the stone facade continues.⁵²
- A chicken house is constructed.⁵³
- March 19, 1897 Chimney construction begins.⁵⁴
- Installation of fabric wall and ceiling finishes begins.⁵⁵
- March 20, 1897 "Work began early with full force and it has proven to be a very satisfactory day in all departments. The foundation stones for the furnace fireplace and stone chimney have been lain and brick work began, floors braced, windows hung, the great girder beams of the second floor windows removed, the stone in the front growing beautifully less and the domestic work moving smoothly. C.B. planning arranging, overseeing to the betterment of all departments. Bob the plumber came, talked over the plumbing and will begin work at \$1.50 a day."⁵⁶
- March 22, 1897 Preparations are made for the installation of indoor plumbing.⁵⁷
- Chimney construction and the demolition of the front wall continue.⁵⁸
- Plans are made to remove the rubble from the demolition of the front wall from in front of the house.⁵⁹
- March 23, 1897 A crew begins removing the stone rubble from in front of the house.⁶⁰
- Demolition of the front facade is nearing completion and preparations are made to excavate a cellar under the house.⁶¹
- The first chimney is completed.⁶²
- March 24, 1897 "The rain and sleet began before day but as the day wore on the rain ceased and our workers came out in force. The front wall is all down and the laborers have been put to digging in the cellar. The cellar at the back of the house is ten feet high; at the front two. We desire to have a uniform height of 6 1/2 feet."⁶³
- March 25, 1897 The Chicken yard is finished.⁶⁴
- Estimates are obtained for lumber and millwork and the contract awarded.⁶⁵

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- March 27, 1897 A retaining wall is constructed behind the house (see Figure 3).⁶⁶
- A foundation wall is constructed beneath the rear wall of the house (see Figures 4 and 5).⁶⁷
- Rubble continues to be removed from the front of the house.⁶⁸
- March 29, 1897 Excavation of the cellar begins.⁶⁹
- March 31, 1897 Window frames and siding arrive at the site.⁷⁰
- Cellar excavation continues (see Figure 86).⁷¹
- April 2, 1897 Third floor front windows are changed to allow for the creation of a red cross in the glazing.⁷²
- The decision is made to create a false gable on the front elevation to increase the apparent pitch of the roof on the center bay. At the same time, mansard type roofs will be added to the tops of the stone corner piers.⁷³
- April 3, 1897 The decision is made to enlarge the work crew.⁷⁴
- April 4, 1897 A new plumber is hired.⁷⁵
- April 5, 1897 The work crew is enlarged, several are fired after the first day. Some workers are truant.⁷⁶
- April 6, 1897 Plumbing work is underway.⁷⁷
- Some workers remain truant, one will be let go.⁷⁸
- The height of the rear retaining wall is increased.⁷⁹
- April 7, 1897 Trees are cleared from near the house.⁸⁰
- The mansard roofs of the corner piers are framed up.⁸¹
- The plumbing work nears completion as does the cellar excavation.⁸²
- The remaining sash and lumber are delivered.⁸³
- A new worker is hired.⁸⁴

April 8, 1897	Plumbing work is finished. ⁸⁵
April 9, 1897	Carpentry work continues and window hardware is purchased. ⁸⁶
April 10, 1897	Carpentry work continues. ⁸⁷
April 12, 1897	Carpentry work continues. ⁸⁸ A truant worker is given notice. ⁸⁹
April 13, 1897	The cellar is modified. ⁹⁰ Crew changes are made. ⁹¹
April 14, 1897	More window hardware is purchased. ⁹² Siding installation begins. ⁹³ An estimate is obtained on roofing work and the chimneys are flashed. ⁹⁴
April 15, 1897	Roofing estimate is received. ⁹⁵ Carpenters install more windows. ⁹⁶
April 16, 1897	Additional millwork and lumber are purchased. ⁹⁷ Roofing work begins. ⁹⁸ The front flagpole is set up. ⁹⁹
April 17, 1897	Site work is undertaken. ¹⁰⁰ The truant worker is let go. ¹⁰¹
April 18, 1897	The front elevation is painted. ¹⁰²
April 20, 1897	Roofing work nears completion. ¹⁰³ The front elevation receives a second coat of paint. ¹⁰⁴
April 21, 1897	Roofing work is finished and the scaffolding removed. ¹⁰⁵
April 22, 1897	The frames for the third floor windows that will have red cross glazing are installed. ¹⁰⁶

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April 23, 1897	Work on the front porch begins. ¹⁰⁷ Summer kitchen chimney is constructed. ¹⁰⁸ Barker glazes the third floor red cross windows. ¹⁰⁹
April 24, 1897	The red cross sash are installed. ¹¹⁰ Provisions for carriage storage are made in the basement of the house. ¹¹¹
April 30, 1897	The front porch is finished. ¹¹² An office partition is installed. ¹¹³
May 4, 1897	Interior wall finishes are installed. ¹¹⁴ Two laborers will be let go. ¹¹⁵
May 7, 1897	Interior wall finishes progress. ¹¹⁶
May 8, 1897	Additional lumber and hardware are ordered. ¹¹⁷
May 10, 1897	Lumber is delivered and returned. ¹¹⁸ Application of interior wall finishes continue. ¹¹⁹
May 11, 1897	Order for wood for fencing is canceled. ¹²⁰
May 12, 1897	The remainder of the siding is prepped for painting. ¹²¹
May 13, 1897	The Red Cross office (most likely Room 113) is finished. ¹²²
May 14, 1897	Interior conditions and liveability are improving. ¹²³
May 17, 1897	Interior finishing continues. ¹²⁴ The siding is ready for paint. ¹²⁵
May 18, 1897	Paint is purchased. ¹²⁶
May 28, 1897	New locks and extra keys made. ¹²⁷
June 4, 1897	Arrangements are made to repair a stained glass window. ¹²⁸

- June 10, 1897 Interior finishing continues.¹²⁹
- June 11, 1897 Plan made to acquire more land around the house.¹³⁰
- June 12, 1897 Deal is made to buy land from the Baltzleys.¹³¹
- The stained glass window repair is completed.
- Arrangements are made to bring telegraph, and later telephone, service out to the house.
- Plans are made to finish the light well in the center hall.
- June 13, 1897 The "new window" is installed.¹³²
- June 15, 1897 Purchased additional lumber.¹³³
- June 23, 1897 "The men are at work on the beginning of my back platform. I am very glad to have that done."¹³⁴
- June 25, 1897 Changes to the front facade are planned (see Figures 6 and 7).¹³⁵
- June 26, 1897 Interior finish continues.¹³⁶
- Plans are made for an additional chimney.¹³⁷
- Miss Barton vacates her bedroom to allow for work there.¹³⁸
- June 28, 1897 Interior finish work continues.¹³⁹
- Cellar storage space is planned.¹⁴⁰
- June 29, 1897 Finish work continues in the upper chamber.¹⁴¹
- Preparations are made for the creation of cellar storage area and carriage house.¹⁴²
- The subject of the deferred fencing comes up, and more land is purchased from the Baltzleys.¹⁴³
- June 30, 1897 Today finds Miss Barton still sleeping in the "lower chamber".¹⁴⁴
- July 2, 1897 Furniture is moved down from the third floor in preparation for storing it in the cellar.¹⁴⁵

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July 7, 1897	After a fierce storm Miss Barton describes the rain coming in "at every crack,..." ¹⁴⁶
July 9, 1897	The carpenters are at work on the third floor. ¹⁴⁷ Stonework is laid in the cellar for the carriage house. ¹⁴⁸
July 13, 1897	Work on the third floor room continues. ¹⁴⁹
July 15, 1897	Work on the third floor room continues. ¹⁵⁰
July 16, 1897	Interior finish work continues. Third floor room finished. ¹⁵¹
July 17, 1897	Work on the Red Cross offices begins. ¹⁵²
July 19, 1897	Work on the Red Cross offices continues, hardware purchased. ¹⁵³
July 22, 1897	The carriage house and the stone piers are the focus of attention. ¹⁵⁴
July 24, 1897	Work on the carriage house continues. ¹⁵⁵
July 25, 1897	Planning for the creation of a document storage room begins. ¹⁵⁶ The decision is made to create a milk box at the spring. ¹⁵⁷ Planning begins for a safe. ¹⁵⁸
July 26, 1897	Milk box is constructed. ¹⁵⁹
July 28, 1897	Work on the carriage house near completion and stone piers are painted ¹⁶⁰ .
July 29, 1897	The carriage house work continues and a "paper room" will be established. ¹⁶¹
July 30, 1897	The carriage house is completed. ¹⁶²
July 31, 1897	Interior work continues. ¹⁶³
August 1, 1897	Planning for interior changes, including the construction of the closets lining the center hall, creation of a pantry and a store room. ¹⁶⁴ Decision to make a servants room in the basement. ¹⁶⁵

- August 2, 1897 Lumber is purchased, and arrangements made for the delivery of a carriage.¹⁶⁶
- The old carriage house is being converted to a residence for "Auntie", the mother-in-law of Miss Barton's servant, Emma Jones (see Figure 8).¹⁶⁷
- August 3, 1897 The "north" side of the house is shored-up.
- Work on Auntie's house continues.¹⁶⁸
- Lumber is delivered.¹⁶⁹
- August 4, 1897 Curtains hung, Auntie's house is finished and work continues on the servants room.¹⁷⁰
- August 5, 1897 Work in the basement continues and provisions are made for heating Auntie's house.¹⁷¹
- August 6, 1897 Additional lumber is ordered.¹⁷²
- August 9, 1897 Basement windows are installed.¹⁷³
- Doors hung.¹⁷⁴
- Stone work is undertaken.¹⁷⁵
- Basement kitchen and servants room completed.¹⁷⁶
- August 8, 1897 Work on the cellar continues.¹⁷⁷
- August 12, 1897 Work on the light well begins (see Figure 9).¹⁷⁸
- Stonework is whitewashed.¹⁷⁹
- August 13, 1897 Work continues on the light well, woodwork is painted and whitewashed.¹⁸⁰
- August 14, 1897 Interior finishes to the Carriage House are applied.¹⁸¹
- August 15, 1897 Offer made to install call bells in the house.¹⁸²
- Arrangements to be made to survey property.¹⁸³

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August 17, 1897	Work continues on the light well. ¹⁸⁴ Stonework is repaired. ¹⁸⁵
August 18, 1897	The parlor chimney is begun. ¹⁸⁶
August 20, 1897	Electric bells are installed. ¹⁸⁷
August 21, 1897	New stairs to the third floor are built. Site work undertaken. ¹⁸⁸
August 23, 1897	Electric bells are completed. Arrangements made to survey the property. ¹⁸⁹
August 25, 1897	More site work is performed. ¹⁹⁰
August 26, 1897	Surveying is performed, conflicts discovered. ¹⁹¹
August 27, 1897	Chautauqua site plan altered to accommodate sighting of the Red Cross Headquarters building. ¹⁹²
August 28, 1897	Plans are made to travel abroad. Work on the house will stop in one week. ¹⁹³
August 30, 1897	Plans made to purchase and survey additional land from the Baltzleys. ¹⁹⁴
August 31, 1897	Wall is begun to extend to the new property line. ¹⁹⁵
September 2, 1897	The first floor closets are started. Work on the new dry stone wall continues. ¹⁹⁶
September 4, 1897	Decision made to retain two carpenters and keep some work going while abroad. ¹⁹⁷
October 15, 1897	Lath and molding are delivered, molding returned. Sand gathered for plaster. ¹⁹⁸
October 16, 1897	Plans made to prepare a room for Dr. Hubbell. ¹⁹⁹
October 17, 1897	Moldings delivered. ²⁰⁰
October 18, 1897	Hallways near completion. ²⁰¹
October 19, 1897	Prepared rooms for plastering. ²⁰²

October 20, 1897	Plastering continues. ²⁰³
October 21, 1897	More plaster installed, new hall closets put to use. ²⁰⁴
October 22, 1897	Plastering continues. ²⁰⁵ Alterations to the pantry begin. ²⁰⁶ Supplies continue to be moved into the new hall closets. ²⁰⁷
October 23, 1897	Pantry changes continue. ²⁰⁸ Dr. Hubbell's room plastered. Tool room made ready for plastering. ²⁰⁹
October 25, 1897	Pantry near completion. ²¹⁰
October 27, 1897	Closets begun in Miss Barton's Bedroom. ²¹¹
October 29, 1897	Closets completed, other interior work begun. ²¹²
October 30, 1897	New pantry put to use. ²¹³
November 2, 1897	Plastering continues. ²¹⁴
November 3, 1897	Dr. Hubbell's room is finished. ²¹⁵ The new pantry, new storeroom, old store room and the tool room are completed and ready for use. ²¹⁶
November 10, 1897	Stove purchased for Miss Barton's room. ²¹⁷
November 15, 1897	Decision made to move the stair and create a library. ²¹⁸
November 17, 1897	Room cleared for the relocation of the stairs. ²¹⁹
November 22, 1897	Interior finishes complete, stair and library work continue. ²²⁰
November 26, 1897	Lumber and hardware purchased. ²²¹
November 27, 1897	Lumber delivered and preparations made for boardwalks construction. ²²²
December 1, 1897	The boardwalk begun. ²²³
December 2, 1897	The boardwalk is well underway. ²²⁴

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December 3, 1897	Work begins on the "vault cellar" (see Figures 10-12). ²²⁵ Work continues on the new stairs and library. ²²⁶
December 4, 1897	Work on the vault cellar continues. ²²⁷
December 10, 1897	Boardwalk finished, work on stair continues. ²²⁸
December 12, 1897	Plans made for shelter at trolley stop. ²²⁹
December 13, 1897	Shelter work begins. ²³⁰
December 14, 1897	Shelter work halted by weather. Preparation for construction of cupboard in office. ²³¹ Stove and hardware purchased. ²³²
December 15, 1897	Trolley shelter finished. ²³³ New stove installed. ²³⁴
December 16, 1897	More lumber purchased. ²³⁵ Shelves installed in vault cellar. ²³⁶ Chamber floor finished. Carpenter to be let go. ²³⁷ Trolley stop shelter painted. ²³⁸ Drum purchased to heat parlor chamber. ²³⁹
December 18, 1897	Stoves prepared for winter. ²⁴⁰
December 20, 1897	Work on stoves continues, drum installed. ²⁴¹ Work on stairs is halted, office cupboard is completed. ²⁴²
December 21, 1897	Stove preparation continues. ²⁴³ Library doors installed. ²⁴⁴
December 23, 1897	Staircase is painted. ²⁴⁵

December 24, 1897	Stoves are tended to. ²⁴⁶ Old library door is stripped. ²⁴⁷
December 27, 1897	Additional drums are installed. ²⁴⁸ Work on stairs continues. ²⁴⁹
December 29, 1897	Partitions built in hall. ²⁵⁰ Boardwalk to front door constructed. ²⁵¹
December 30, 1897	Hall partition and stair work continues. ²⁵²
January 3, 1898	Work on the house comes to a standstill. ²⁵³
January 5, 1898	Work resumes. ²⁵⁴
January 7, 1898	The library remains unfinished. ²⁵⁵
January 13, 1898	Work once again resumes on staircase. ²⁵⁶
January 14, 1898	Work on stair continues. ²⁵⁷ Plastering resumes. ²⁵⁸
January 15, 1898	Stair work continues. ²⁵⁹
January 17, 1898	Stair near completion. ²⁶⁰

5. APPEARANCE OF THE HOUSE IN 1898

As shown in the chronology above, beginning in March of 1897 the Red Cross Headquarters building at Glen Echo underwent extensive renovations to make it suitable for use as the headquarters of the American Red Cross. After this conversion, it would continue to provide warehouse space (as it had since 1891), while also providing offices and quarters for Red Cross staff. Work on this renovation continued through 1897 and into early 1898, after which the relatively crude structure of 1891 had been finished to a level where it was suitable for use as a residence and office. (See Drawings 6, 7, 8 and 9)

On the exterior, the most notable change was the demolition of nearly all of the stone facade and its replacement with a wood framed wall matching the rest of the building (See endnotes 41, 45, 52, 56, 59-61, and 63). The decision to retain two segments of the original facade was most likely a practical, rather than an aesthetic one. Since the stone facade formed the front wall of the two story masonry vault at the north corner of the house, demolishing the eight feet of wall in front of the vault would have compromised the structural integrity of the vault. The corresponding eight feet of stone wall at the east corner of the house, although not structurally necessary, was retained in order to balance the composition of the front facade.

To further improve the appearance of the facade, the stone piers were capped with 10 foot tall mansard type roofs (referred to as "towers" in the diary entries, see endnotes 81, 95, 98, 103 and 105). The shallow gable of the central bay received a false front that substantially increased the apparent pitch of the central roof (See endnote 73) and the flanking shed roofs were screened behind false fronts that ran horizontally from each side of the central bay over to the stone piers.

Wood lap siding was applied to the new front elevation as well as to the previously exposed sheathing of the side and rear elevations (see Figure 13 and endnotes 70, 93, 102 and 104).

The original 1891 windows on the side and rear elevations of the first and second floors all had six-over-six double-hung sash. New four-over-two sash were installed in the reconstructed front elevation and one new six-over-six window was installed on one of the side elevations (see endnote 42). The side and rear elevations of the third floor rooms retained their alternating four-over-four and six-over-six double-hung sash. The alternating four and six-light single sash windows opening into the clerestory were also retained. Some of the clerestory windows operated on a horizontal pivot mechanism.

The front elevation of the third floor front room was given two four-light fixed sash that flanked a pair of nine-over-two windows that opened onto a small balcony. One of these paired sash is a nine-over-two double-hung sash. The other is a casement sash that was custom made to present the appearance of a nine-over-two double-hung window. This casement window is hinged at the side to provide access out on to the balcony (See endnotes 106, 109 and 110).

A large multi-light window with stained glass was installed in the main stairway.

Completing the exterior alterations was the construction of a low porch that ran the full width of the front of the house with a small portico that was placed over the centrally located front door. (See Figure 13). The porch railing had square posts with turned balusters. The gabled portico was supported on turned posts with corner brackets. A flight of steps directly in front of the doorway led up from the ground to the porch deck.

On the interior exposed studs and joists were covered either with stretched fabric or with plaster and lath. (For references to fabric finishes see endnotes 112, 113, 117 and 122. For references to plaster finishes see endnotes 201, 202, 205-208, 212, 215, 217 and 261). The second floor "light well" was reduced in size and surrounded with a balustrade.²⁶¹ The main staircase was relocated to make room for a library (see endnote 221). New partitions were constructed, doorways cut into existing walls, and baseboards, window casings and other trim was applied²⁶². A fireplace was added (see March 20, 1897) and several chimneys constructed to accommodate stoves for heating (see endnotes 32, 49, 50, 53, 57, 61, 92, 138 and 189).

In the end, after nearly a year of work, the Red Cross Headquarters was transformed from a crude, unfinished warehouse into a finished, if unconventional, residence, office, and storehouse.

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6. 1898-1912: CHANGES TO THE CLARA BARTON HOUSE DURING MISS BARTON'S RESIDENCY

October 4, 1898	Construction of a stable begins. ²⁶³
December 2, 1898	Stable is complete. ²⁶⁴
December 9, 1898	A shed is constructed. ²⁶⁵
December 21, 1898	The back parlor fireplace to be tiled. ²⁶⁶
December 27, 1898	The shed nears completion. ²⁶⁷
December 29, 1898	The decision is made to have a telephone installed. ²⁶⁸
May 3, 1901	Use of pasture in front of the house is offered. ²⁶⁹
May 7, 1901	Pasture fence completed. ²⁷⁰
August 22, 1901	New hen house constructed. ²⁷¹
September 2, 1901	Chimney pots added. ²⁷²
September 24, 1901	Additional cellar work undertaken. ²⁷³
February, 1902	Miss Barton's bedroom floor stained. ²⁷⁴
August 19, 1902	House painting begins. ²⁷⁵
August 22, 1902	House painting continues. ²⁷⁶
	A new hen house is constructed. ²⁷⁷
November 2, 1902	Plumbing improvements made, stair rail installed. ²⁷⁸
November 10, 1902	A metal roof is added to the shed. ²⁷⁹
December 12, 1902	Miss Barton changes bedrooms. ²⁸⁰
December 25, 1902	Dr. Hubbell paints the kitchen floor and redresses the bathtub. ²⁸¹
June 29, 1903	Report that screen doors have been installed. ²⁸²
September 16, 1903	Interior painting undertaken. ²⁸³

October 30, 1903	Interior painting continues. ²⁸⁴
November 5, 1903	More interior painting. ²⁸⁵
November 12, 1903	Bathroom varnished. ²⁸⁶
November 13, 1903	Basement ceiling partially plastered. ²⁸⁷
December 16, 1903	Third floor rooms painted. ²⁸⁸
April 30, 1904	Front of the house painted. ²⁸⁹
May 14, 1904	Clara Barton resigns as president of the American Red Cross
July 27, 1904	Report of room uses changing. ²⁹⁰
March 22, 1906	"Landing doors" repaired. ²⁹¹
April 21, 1906	Side of house partially painted. ²⁹²
May 19, 1906	Basement boiler repaired. ²⁹³
May 20, 1906	Kitchen boiler repaired. ²⁹⁴
September 27, 1906	The stable steps are mended. ²⁹⁵
October 9, 1906	Bathtub painted. ²⁹⁶
November 21, 1906	Kitchen whitewashed. ²⁹⁷
March 25, 1907	Room arrangements altered. ²⁹⁸
Summer 1907	House painted. ²⁹⁹
October 24, 1907	Repairs made to rear "portico". ³⁰⁰
April 10, 1908	Garden walkway created. ³⁰¹

Dr. Hubbell takes Ownership

November 11, 1908	Title to the Clara Barton House transferred to Dr. Hubbell. ³⁰²
1909	Electric lighting installed. ³⁰³
January 19, 1910	Kitchen enlarged. ³⁰⁴

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December 9, 1910	Miss Barton's bedroom windows are weatherproofed. ³⁰⁵
December 12, 1910	Electric lighting completed. ³⁰⁶
May 1911	Floors varnished. ³⁰⁷
July 11, 1911	Rear porch is constructed (see Figure 14). ³⁰⁸
August 3, 1911	Rear porch nears completion. ³⁰⁹
April 12, 1912	Clara Barton dies.

7. APPEARANCE OF THE HOUSE IN 1912

After the extensive 1897-98 remodeling, no major alterations were made to the house during Miss Barton's residency. With few exceptions, the work performed on the house represented routine maintenance or modernization.

From the exterior, the appearance of the house remained unchanged until 1911 when Dr. Hubbell constructed a porch off of the back of the house (see endnotes 311 and 312). On the interior, improvements included the installation of a telephone (see endnote 270), electric lighting (see endnotes 306 and 309), and additional plumbing (see endnote 281). Tile was installed on the rear parlor fireplace (see endnote 271), the kitchen was enlarged (see endnote 307), screen doors were installed (see endnote 285) and storm windows installed on Miss Barton's bedroom windows (see endnote 308).

Changes to the site include the construction of a stable (see endnotes 266 and 267) and a storage shed (see endnotes 268 and 269).

8. 1912-1929: CHANGES TO THE HOUSE UNDER THE OWNERSHIP OF DR. HUBBELL AND MRS. HIRONS

Mabelle Rawson Hirons takes ownership

May 14, 1914	Dr. Hubbell transfers title to all his property, including the Clara Barton House, to Mabelle Rawson Hirons.
May 26, 1919	New front porch is being built. ³¹⁰
September 21, 1920	Dr. Hubbell files suit against Mrs. Hirons to regain ownership of the property (including the Clara Barton House) that he deeded to her six years before.

Dr. Hubbell regains ownership

February, 1926	Maryland Court of Appeals orders return of the property to Dr. Hubbell. ³¹¹
May 1, 1926	Dr. Hubbell moves back into the Clara Barton House. ³¹²
1927	The stable has by now been converted to a garage.

Ownership passes to the Hubbell nieces

November, 19 1929	Dr. Hubbell dies leaving the Clara Barton House to his two nieces.
1930s	The house is converted to apartments.

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9. 1930-1976: CHANGES TO THE HOUSE DURING THE TIME IT WAS USED AS AN APARTMENT BUILDING

1936 A new, three bedroom apartment is constructed at the northwest end of the basement incorporating the carriage house (?). The outbuilding (carriage house?) that is visible on the southwest side of the building in Photo Number ? was demolished.

Mrs. Josephine Franks Noyes takes ownership

1942 The Hubbell nieces sell the house to Mrs. Josephine Franks Noyes (see Figure 53).³¹³

Ownership passes to Mrs. Noyes sisters

1958 Mrs. Noyes dies, passing the house on to her four sisters.³¹⁴

c. 1960 A new garage is constructed (see Figure 26).³¹⁵

1961 Mrs. Noyes' sisters begin seeking a purchaser who will preserve the house in the memory of Clara Barton. Several offers from those with no interest in preserving the house are rejected.

May 1963 The Friends of Clara Barton take an option on the Clara Barton House.³¹⁶

The Friends of Clara Barton take ownership

January 1964 The Friends of Clara Barton settle on the property, paying half of the \$35,000 purchase price. At the same time, the furnishings were purchased for an additional \$5,000. Over the next 11 years, the Friends of Clara Barton spent \$60,000 on repairs and restoration work.

1966 Front siding is replaced, the front porch is rebuilt, the roof is replaced and cloth ceilings repaired.

October 1974 Public Law 93-486 provides for the donation of the Clara Barton House to the people of the United States.

January 12, 1965 The Clara Barton House is designated as a National Historic Landmark.

October 8, 1974 Legislation is passed creating the Clara Barton National Historic Site (CLBA please verify)

National Park Service takes ownership

April 29, 1975

The deed for the Clara Barton House is officially presented to the Department of the Interior. Since that time, the site has been administered by the National Park Service.

Spring, 1975

The original metal roofing on the central roof is replaced with 20 lb tern coated standing seam metal roofing.

10. APPEARANCE OF THE HOUSE IN 1976

After Dr. Hubbell's death, the building underwent considerable change in its conversion into an apartment building (see Drawings 10, 11, 12 and 13). Documentation of the alterations made between 1929, when the nieces took possession, and 1976, when the building's existing conditions were recorded by the Historic American Buildings Survey, is scarce. What is more, much of the physical evidence of these changes was lost during the 1960s and early 1970s when the Friends of Clara Barton made changes to restore sections of the house to an earlier appearance.

What is known of this period is that exterior alterations to the house were limited to the creation of a new entrance and stairway on the northwest elevation. Here, a doorway that was inserted between the third and fourth windows from the rear of the building opened into the back stairway (room 110). Because the grade descends toward the rear of the building, an external stairway was required to reach this first floor entrance. A shed roof attached to the southwest elevation covered both the stairway and two adjoining windows.

On the interior, large rooms were subdivided to create new living rooms, dining rooms, and bedrooms, and new plumbing fixtures were installed to create additional bathrooms and kitchens. In addition, the southwest wall of the foyer was pushed back to increase the depth of the foyer from nine to twenty six feet, the blue tile installed on the parlor fireplace was replaced with brick, and radiators and a boiler were installed to replace the coal and wood stoves. The doors into the closets that line the center hall of the first floor were fixed closed and new doors created so that the closets could be accessed from inside the apartments. It was also during this period that the fiberboard was most likely installed over many of the board partitions.

11. 1976-1997: CHANGES TO THE HOUSE UNDER THE NATIONAL PARK SERVICE

1976	The stone foundation walls are supported.
Fiscal Year 1978	<p>Interior, exterior and foundation repairs are made. The foundation stone work is repointed and underpinned.</p> <p>Repairs are made to the roof deck and new roofing is installed over the center bay.</p> <p>The exterior of the building is painted and the parlor chimney is repointed and "restacked".</p> <p>A new underground fuel oil tank is installed</p> <p>Parts of the house are rewired and abandoned wiring is removed.</p>
September 1978	Termites are exterminated and the termite damage in the wood flooring is repaired.
1979	Plumbing repairs are executed. ³¹⁷
February 4, 1979	The floor in Miss Barton's bedroom is refinished. ³¹⁸
April 5, 1979	Some of the wiring at the furnace is removed and replaced. ³¹⁹
May 16, 1979	Plans are made to construct a mechanical room in the basement ³²⁰ .
May 29, 1979	The vestibule wall, which was relocated as part of the apartment conversion, is dismantled and reconstructed in its original location. ³²¹
June 15, 1979	The basement mechanical room is constructed. ³²²
1980	Extensive repair and restoration begins (see Figure 15). ³²³
September 1980	Interior restoration starts (see Figures 16, 17 and 87). ³²⁴
1986-87	Side entrance and stairway are removed from the northwest elevation of the house.
October, 1988	Roofs over the side bays of the house receive new roofing when the existing roofs are replaced with a standing seam, terne metal roof. ³²⁵
September, 1994	A new modified bitumen roof was installed on the roof of the front porch. ³²⁶

12. APPEARANCE OF THE HOUSE IN 1997

The simple rectangular plan of the Clara Barton House, with rooms that open off of both sides of a large central hall, has allowed it over the years to function as a warehouse, as the headquarters for a national organization, and as a private residence, boarding house, and as an apartment building without undergoing significant plan changes (compare Drawings 6-9 with Drawings 10-13 and 14-17).

The house utilizes a simple and flexible structural layout that is composed of three equally spaced structural bays running the entire length of the building. The two flanking bays are two stories in height while the central bay is three. The flanking bays have shed roofs that slope upward toward the central bay. The central bay projects above these flanking shed roofs to form a modified monitor roof.

A monitor roof, as seen on the Johnstown Hotel (see Figure 2), provides a clerestory beneath the gable roof of the center bay that can be used to light the interior of the building. Compared with the roof of the Johnstown Hotel, the monitor roof of the Clara Barton House has been modified through the creation of three rooms at the third floor level, one towards the front of the building, one towards the rear, and one in the center. To insert these rooms, the roof of the central bay was raised in the areas above the rooms. The front and rear rooms have shallow gables while the center room has a hipped roof. The sections of roof between these raised roofs indicates where the roof line would have been if the three third floor rooms had not been constructed (see Figure 18).

With the exception of the basement walls, the brick vault, and the stone piers that flank the front elevation, the house is built entirely of wood. The exterior walls and the interior bearing walls are framed with 2 x 4 studs, while interior partitions are typically made from varying widths of 1" vertical tongue and groove boards. The floor structure typically utilizes 2 x 8 joists that span across each of the three structural bays. At the first floor level there is a subfloor that is composed of random width 1 inch boards. The second and third floors do not have subflooring. On all three floors, the finish flooring is of tongue and groove pine boards.

On the two flanking shed roofs, the rafters are composed of a vertical 2 x 4 with a horizontally oriented 2 x 4 attached to its bottom face (see Drawing 1/SK-4, Appendix D). The roof deck utilizes random width 1 inch boards. Rafters in the central bay are 2 x 4s except above the center room where the hip roof is composed of 2 x 6s. The exterior of the building is clad with German siding.

a. Exterior Appearance

Front Elevation: The front elevation of the house (see Figure 19) is divided into seven bays. The central bay on the first floor is occupied by the main entrance. On either side of the doorway there are three double-hung windows. On the second floor, additional double-hung windows are aligned with the windows below, and a pair of windows are located above the central double doors of the main entrance. The third floor, like the floor below, has paired windows centered above the main entrance. These windows are topped with a triangular transom and are flanked by single windows. Except for the windows on the third floor, all of the double-hung windows on this elevation have four-over-two pane configurations. On the third floor, the flanking windows contain fixed four light

sash while the center windows have a nine-over-two configuration. To provide access to the third floor front balcony, one of the paired center sash was specially constructed to present the appearance of a nine-over-two double-hung sash. It is actually a single sash that is hinged on one side to swing like a door.

At the north end of the front elevation a small, four light casement sash has been inserted into the upper corner of the original full sized window openings on the first and second floors (see Figure 20). The original full-sized openings backed up against the brick wall of the vault and originally contained "blind" windows³²⁷ that matched the other four-over-two windows on this elevation. As part of the apartment conversion, the blind windows were removed and small openings were made through the brick wall of the vault at both the first and second floors (see Figure 21). The existing casement sash were installed in these small openings. The two original full-sized openings retain surrounds that match those of the other windows on this elevation. The original full-sized openings have been infilled with German siding to match the rest of the elevation.

Across the front of the house there is a two level porch. The lower porch floor is a concrete slab with a projecting center bay that is supported on uncoursed rubble walls. The wood deck of the upper level of the porch also has a projecting center bay and is supported on slender Tuscan Doric columns. The upper level has a simple balustrade with square posts and balusters (see Figure 19).

Above the porch, centered on the paired windows of the third floor, is a small balcony. The balcony railing, unlike that of the porch below, has turned balusters and corner posts.

Side and Rear Elevations: Windows on the side and rear elevations of the first and second floors are six-over-six except at the main stair. Here, a large 24 light fixed window opens into the stairwell. This large opening is the one that would have been occupied by the stained glass window that was purchased at Gleason's stable in 1897. Below this large fixed sash is a small, six light awning window. This small window appears to be the bottom half of the double-hung window that would have been in this location before the stairs and the stained glass window were moved to allow for the creation of the library (see Figure 22).

On the third floor, the windows that open into the three rooms are all double-hung. They are twice the height of the adjacent clerestory windows that light the spaces between the rooms. The openings for all of the third floor windows are alternately three lights and two lights in width. Inside the rooms, the double-hung windows alternate between six-over-six and four-over-four configurations. The clerestory windows contain single sash that alternate between six light and four light configurations. Some of the four-light single sash have been installed to operate as pivot windows. Originally out of reach from the second floor, it is likely that pivot sash were used because they could have been operated from below (see Figure 18).

At the basement level, the windows are either six-over-six double hung (see Figure 23) or six light fixed (see Figure 24). Toward the rear of the building, where the grade is lower, there is room for full sized double-hung sash. Toward the front the building there is only room for the single sash. One set of double doors on the northwest elevation contains a pair of fixed two light sash (see Figure 25).

On the rear elevation, there was a small two-story porch that was demolished along with the garage (see Figure 26). While the garage was clearly a non-historic addition, it is likely that the second floor level of this porch was Dr. Hubbell's "seven foot portico in the front of our windows" that was described in the 1911 diary. The floor area of the first level of the porch probably originally matched that of the upper level, however, when the garage was constructed, the lower level may have been enlarged to encompass the full area of the garage roof.

b. Interior Appearance

On the interior, many of the changes are difficult to document. Restored fabric walls can be found on the first floor in room 114 (the rear corner office) and room 112 (the dining room), and on the second floor in room 212 (Clara Barton's bedroom). Restored fabric ceilings can be found in the two Red Cross offices (rooms 113 and 114) (see Figure 27), the dining room (Room 112), and in Clara Barton's Bedroom (room 212). The center hall (room 102) retains its original fabric ceiling as does much of the third floor. The ceilings of Clara Barton's sitting room and Dr. Hubbell's bedroom (rooms 210 and 211) have been removed for restoration.

Non-load bearing partitions, whether or not they were not covered with fabric, were typically constructed of vertical boards (see Figure 28). Stud bearing walls that were not covered with fabric received either plain or beaded vertical boards (see Figure 29), or a lath and plaster finish. In many rooms, including Clara Barton's sitting room (Room 211), Dr. Hubbell's bedroom (room 210), the original second floor bathroom (room 209), the stairway (room 110), the library (rooms 201 and 203), and the first and second floor halls (rooms 102 and 202), beaded board remains exposed. In the second floor kitchen (room 208) there is a plain board wall and a board and batten wall. In the center Red Cross office on the first floor (room 113), the original beaded board walls have been restored. Plaster on wood lath can be found in many rooms throughout the first and second floors including some of the walls in Dr. Hubbell's bedroom (rooms 210), parts of the second floor National Park Service offices (rooms 206 and 207) and the two library rooms (Rooms 201 and 203) (see Figure 30). Elsewhere, the walls remain covered with fiberboard. It is assumed that in most cases the fiberboard conceals original vertical board partitions.³²⁸ In some cases, where fiberboard is found on stud wall, it either covers or replaces plaster on wood lath.

Trim and detailing: Both during its initial construction and during its 1897 renovation, many salvaged and recycled materials were employed in the construction of the house. One result of this is that many different types of trim and finishes can be found (See Figures 31-38). At least ten different kinds of beaded board are used on the walls throughout the house (see Illustration 1), there are four distinct types of wood door and window casings (see Illustration 2) and three different types of corner blocks (see Illustration 3).

Without paint analysis, or other in-depth research, it is not possible to definitively establish which of these components date to the period of interpretation.

See the Inventory of Significant Spaces and Details for more information on interior finishes.

Endnotes

1. Delivery receipt located at the Library of Congress, Box 32, Ser. 2 of the Clara Barton Papers.
2. Letter Book Number 10, Pt. 2, Ser. 2, Clara Barton Papers, pp. 850 -851.
3. Letter book Number 10, Pt. 2, Ser. 2, Clara Barton Papers, p. 853.
4. The receipt to Albert Gleason can be found in the Cont. 32, Ser 2, Clara Barton Papers and a letter to the District of Columbia found in Letter Book Number 11, Pt. 1, Ser. 2, Clara Barton Papers, both in the Library of Congress.
5. Letter Book Number 11, Pt. 2, ser. 2, Clara Barton Papers, pp. 576-578, Library of Congress.
6. Letter Book Number 11, Pt. 2, ser. 2, Clara Barton Papers, pp. 591-592, Library of Congress.
7. Letter Book Number 11, Pt. 2, ser. 2, Clara Barton Papers, pp. 635, Library of Congress.
8. The Washington [DC] Star, July 11 1891, p. 6. Also see Levy, "Glen Echo on the Chautauqua on the Potomac", p. 24.
9. Portland Maine Times, 1903.
10. Diary entries and physical evidence suggest that the side and rear elevations of the house remain largely unchanged from 1891. Notable exceptions include the new window that was added to the corner Red Cross Office (Room 114), the large fixed, multi-light sash in the stairwell and the small six light sash below it that opens into the storage area beneath the stairs. Known changes to the rear elevation have been reversed and it is assumed that the fenestration on this elevation appeared then much as it does now.
11. Pryor, Joan, "Restoration Repair Report, August 1994", in the Clara Barton National Historic Site Restoration Log located at the site.
12. Letter Book Number 21, Pt. 1, ser. 2, Clara Barton Papers, p. 18, Library of Congress.
13. Letter Book Number 11, Pt. 2, ser. 2, Clara Barton Papers, pp. 644, Library of Congress.
14. Letter Book Number 12, Pt. 1, ser. 2, Clara Barton Papers, p. 70, Library of Congress.
15. Letter Book Number 12, Pt. 1, ser. 2, Clara Barton Papers, pp. 164, 179 and 183, Library of Congress.
16. Red Cross Diary, June 6, 1892.
17. Red Cross Diary, June 8, 1892.
18. Red Cross Diary, June 16, 1892.

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19. Red Cross Diary, June 18, 1892.
20. Red Cross Diary, June 20, 1892.
21. Letter Book 13, Pt. 1, Ser. 2, Clara Barton Papers, p. 194, Library of Congress.
22. Letter Book 12, Pt. 2, Ser. 2, Clara Barton Papers, pp. 704, 752 and 786, Library of Congress.
23. Letter Book 12, Pt. 2, Ser. 2, Clara Barton Papers, Library of Congress.
24. Letter Book 17, Pt. 1, Ser. 2, Clara Barton Papers, pp. 5, 24 and 27, Library of Congress.
25. Red Cross Diary, December 6, 1896.
26. Red Cross Diary, December 10, 1896.
27. Red Cross Diary, December 15, 1896.
28. Blotter No. 5, July 1896 through June 25, 1897, cont. 47, Ser. 2, Clara Barton Papers, p. 108, Library of Congress.
29. Blotter No. 5, July 1896 through June 25, 1897, cont. 47, Ser. 2, Clara Barton Papers, p. 109, Library of Congress.
30. Blotter No. 5, July 1896 through June 25, 1897, cont. 47, Ser. 2, Clara Barton Papers, p. 110, Library of Congress.
31. Red Cross Diary, March 5, 1897. "We begin alterations at Glen Echo, starting with the dining room."
32. Blotter No. 5, July 1896 through June 25, 1897, cont. 47, Ser. 2, Clara Barton Papers, p. 123, Library of Congress.
33. Red Cross Diary, March 10, 1897. "McDowell and Mr. Jarrett came. Mr. J. to see about building two chimneys and walling up va[u]lt front." As originally constructed, the Red Cross Headquarters building probably had no chimneys. Like the Johnstown Hotels, exhaust from any stoves was probably vented through metal stove pipes. The vault front would need "walling up" because Miss Barton was planning to demolish the front facade of the building which had been constructed of stone so that it would blend with the stone buildings that were planned for the nearby Chautauqua Assembly. The vault was constructed so that a portion of the front elevation formed the front wall of the vault. If the entire front elevation was demolished, the vault would require a new masonry wall to remain a fireproof enclosure.
34. Red Cross Diary, March 11, 1897. "Mr Cash, a carpenter, sent by McDowell came this morning and we contract with him at \$2.00 a day. He began work at ten a.m. We are to replace him at any time we find a cheaper man if we so desire. He is to sleep and eat here, going home for a night in the middle of the week and Saturday night to spend Sunday. Mr. Elder another carpenter sent by Mr. Jarrett [also

came]. He will come a week on trial at \$1.00 a day and if he proves satisfactory we will give him \$8.00 per week, board and lodging included."

35. Red Cross Diary, March 11, 1897. "Robert Jones (Husband of Emma Jones, Miss Barton's housekeeper) came to help G.P. With Robert and Randolph begins clearing the basement of lumber."

36. March 13, 1897. "Mr. Isreal called this morning again. They want \$570 and will secure us by a note having as collateral a trust deed covering the property to be sold. He did not have the deed so we suggest that he get it and meet us at 32 & P St tomorrow at ten when we will go to his stables where large quantities of house or building material are stored and see if there is anything we can use. We may also advance the money."

37. Red Cross Diary, March 13, 1897. "Our work is progressing finely. Barker and Cash arranging the dining room and two offices, connecting the three by triple doors."

38. Red Cross Diary, March 13, 1897. "Elder raising and remodeling the out house."

39. Red Cross Diary, March 13, 1897. "Mr. Elder remains with us."

40. Red Cross Diary, March 14, 1897. "...drive to Gleason's stables, Mass. Ave. extended. Look over a great quantity of house material and though most of the stuff is of no use to us we select two sets of heavy vestibule doors, a large stained window, some lumber and a lot of brick."

41. Red Cross Diary, March 15, 1897. "McDowell came to work this morning and assisted by Randolph began knocking the great unhandsome stone front from our building, a very hard job as the stone are [sic] put up in Portland cement."

The Glen Echo area was originally developed to be a National Chautauqua, a center of learning and the arts. The developers, the Baltzley brothers, intended to construct the buildings of the Chautauqua of stone from their quarries and convinced Miss Barton to put a stone facade on the front elevation of her new headquarters building. By 1897 the Chautauqua had failed and there was no longer any reason to maintain the stone facade, which Miss Barton considered "unhandsome".

The demolition of the stone facade would take several weeks.

42. Red Cross Diary, March 15, 1897. "Cash is arranging and fitting doors..."

43. Red Cross Diary, March 15, 1897. "...Elder finishing the outhouse and walk."

44. Red Cross Diary, March 16, 1897. "One thousand brick, six barrels of unslaked lime and half a ton of coal were delivered by Gleason's teams today."

45. Red Cross Diary, March 16, 1897. "McDowell made good progress tearing down the front wall today."

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46. Red Cross Diary, March 16, 1897. "Cash cut a hole in the office wall, framed and set a new window."

Since this window appears to match the other windows, it is possible that it was originally installed in the location where the stained glass window (purchased March 14, 1897) was to be installed above the stairs. Being frugal, Miss Barton may have decided to reuse this window in the Red Cross Office.

47. Red Cross Diary, March 16, 1897. "Elder finished the approaches to the outhouse..."

48. Red Cross Diary, March 16, 1897. "Elder...built the platform at the car track.

49. Red Cross Diary, March 17, 1897. "Three more loads of brick came today."

50. Red Cross Diary, March 17, 1897. "Mr. Jarrett, the man who is to build our chimneys and brick the va[ul]t front came this morning. He located a sand bank and Robert Jones began drawing sand. Drew two loads this afternoon."

51. Red Cross Diary, March 18, 1897. "It rained all night and is rather damp and heavy today as an assistant to Mr. Jarrett in [is?] putting up the brick chimneys. He is a strong young man and will probably do well."

52. Red Cross Diary, March 18, 1897. " G.P. on the wall helping McDowell. Great progress was made."

53. Red Cross Diary, March 18, 1897. "The chicken house is finished."

54. Red Cross Diary, March 19, 1897. "Mr. Jarrett, assisted by Mr. McDowell, layed [sic] the foundation for the first chimney today..."

55. Red Cross Diary, March 19, 1897. "Barker and Elder began tacking the builder's paper on the dining room. We are to tack heavy paper on first, over this will be tightly stretched thick cotton, and the wall paper will be pasted on the cotton.

It is unclear whether this type of wall treatment was considered stylish, or if it was meant to be an economy. Fabric wall finishes were apparently used in the first half of the nineteenth century in New England (where Miss Barton was raised) as well as in Europe (which Miss Barton had occasions to visit both before and after the creation of the American Red Cross). The use of fabric wall finishes is a subject that warrants further research in the context of the Clara Barton National Historic Site.

Rooms finished later in the project were finished with the more traditional materials of lath and plaster.

56. Red Cross Diary, March 20, 1897.

57. Red Cross Diary, March 22, 1897. "Bob and helpers begin preparation for the water pipes."

58. Red Cross Diary, March 22, 1897. "Jarrett above the second floor with his chimney. McDowell leveling the front wall."

59. Red Cross Diary, March 22, 1897. " We will try and put two or three men to getting the fallen stone away from the front of the building so we can get the rest of the stone down."

60. Red Cross Diary, March 23, 1897. "We put three young negroes [sic] pulling out stone from the front. They have worked very well for the first day."

61. Red Cross Diary, March 23, 1897. " The front wall is about down and the next thing will be the excavation of the cellar"

62. Red Cross Diary, March 23, 1897. " The first chimney is finished the last brick having been placed at 6 o'clock tonight."

63. Red Cross Diary, March 24, 1897.

64. Red Cross Diary, March 25, 1897. " Chicken yard finished."

65. Red Cross Diary, March 25, 1897. " G.P. and Elder visit several mills to get figures on windows, doors and their casings, weather-boards etc. Jackson finally getting the contract as his figures, all things considered, were the most reasonable."

"Jackson is to finish the window and door frames and deliver at Glen Echo next Tuesday if possible."

Since the front elevation was to be demolished and reconstructed, new doors and windows were needed, also, a window was to be added in the corner Red Cross Office (Room 114). As constructed in 1891, the building apparently had board sheathing but no siding. This is probably one reason why Miss Barton did not occupy the house into the winter of 1891. Without siding the building would have been very drafty and impossible to heat.

66. Red Cross Diary, March 27, 1897. "Jarrett and McDowell are constructing a dry sustaining wall ten feet from the back of the house..."

The grade at the site sloped downhill from the front of the house to the rear. At the back of the house, the grade dropped off sharply down to the C & O Canal and the Potomac River. The retaining wall, built utilizing the spoil from the demolition of the front facade, was used to contain soil excavated from under the house as the cellar was excavated. This created a small area of level grade directly behind the house (see Figure 3).

67. Red Cross Diary, March 27, 1897. "Jarrett and McDowell are constructing...a cement and mortar wall under the rear wall."

Physical evidence suggests that the house was originally built on freestanding stone piers that left an open crawlspace beneath the house. Since an enclosed cellar was to be excavated as part of the 1897 rehab,

the spaces between the piers would have to be infilled (see Figures 4 and 5). The construction of this wall would have been part of that process.

68. Red Cross Diary, March 27, 1897. "The laborers with Robert's horse are getting the stone away from the front and carrying it to the back."

The spoil from the demolition of the front facade was used to construct the retaining wall and the foundation.

69. Red Cross Diary, March 29, 1897. "The laborers are put to digging out the cellar so as to fill in between the dry and cellar walls."

70. Red Cross Diary, March 31, 1897. "Jackson sent out the window frames and siding today and the carpenters began at once putting the frames in."

71. Red Cross Diary, March 31, 1897. "Good progress is being made in excavating the cellar though McDowell says the cubs will not work unless continuously packed."

The transcription of the word "cubs" here is probably a misspelling of the word "curbs". The excavation of the cellar was complicated by the fact that the original stone piers that carried the sill plate of the first floor walls were not set very far below grade. Since the grade sloped upwards towards the front of the house, the bottoms of the stone piers toward the front of the house would be higher than the newly excavated cellar floor. In order to prevent undermining these piers, it appears that the area along the inside face of the cellar wall was left unexcavated. This earthen curb would have been "packed" solid to prevent it from collapsing (see Figure 86).

72. Red Cross Diary, April 2, 1897. "G.P. and Elder go into the city and order Jackson, the lumber man, to change the center windows on the third floor so we may put red cross in the upper sash if we want them."

73. Red Cross Diary, April 2, 1897. "We decide to raise the peak of the house eight feet, making the corner towers ten feet which will give the front a better appearance and greatly add to its correct proportions."

74. Red Cross Diary, April 3, 1897. "Elder sees two carpenters with whom he has worked who will begin Monday probably. Elder declares them first class workmen. We also decide to take on three or four more "coons" to clear out the cellar and carry the cement & stone from the front to build the rear wall and roadway."

75. Red Cross Diary, April 4, 1897. "Mr. Fowler, a plumber, sent by McDowell came. He contracts to furnish all supplies we have not on hand, to put the water, hot and cold, in the bathroom, set the tub, closet and basin, put water back on kitchen stove, set the boiler, run the hot and cold water to the sink in kitchen, put water back, set boiler on lower room stove, put all water connections necessary to sink in lower room, put large sewer connection in this room so that water and slop can be safely thrown in, and

make all other sewer connections with bath and other rooms for \$70.00 which includes his own services and those of his men."

76. Red Cross Diary, April 5, 1897. "We put on two more carpenters, Macky and Flannagan, good men recommended by Elder; wages \$1.50 a day. Elder's wages are increased to \$2.00 a day as we place him as foreman. We put five new "coons" in the cellar, total nine, but at night we discharge four. Randolph did not show up today, neither did Jarret, reasons not known."

77. Red Cross Diary, April 6, 1897. "Curtain and Lithgow, the two plumbers progressed finely today. We discovered however that they were putting the water pipes too near the outside wall and had them undo a part of their work and run the pipes to the center wall and then up. In this way we think the pipes will not freeze."

78. Red Cross Diary, April 6, 1897. "Jarrett nor Randolph showed up today. We will replace Randolph by Robert Green, a colored man living near here."

79. Red Cross Diary, April 6, 1897. "McDowell is building a fine dry wall at the back, or building it higher and topping it with cement."

80. Red Cross Diary, April 7, 1897. "The two trees at the corner of the front wall were cut down this morning by McDowell. We are very glad of this for we have long wanted them down. The last time the house was burglarized the thief or thieves climbed these trees to the roof."

81. Red Cross Diary, April 7, 1897. "The two little side towers were framed and put in place today. They will look well."

82. Red Cross Diary, April 7, 1897. "The plumbers have about finished the bathroom and they expect to end their work tomorrow. The cellar is also about cleared."

83. Red Cross Diary, April 7, 1897. "Jackson's sends balance of the sash and lumber. G.P. was in town when they were delivered so the check was not given. The sash were to be delivered Thursday."

84. Red Cross Diary, April 7, 1897. "Jame [sic] Brown came this morning to help. Wages \$2.50 per week."

85. Red Cross Diary, April 7, 1897. "The plumbers finished their work today--very satisfactory. Paid Fowler \$70 for the job, which we consider reasonable."

86. Red Cross Diary, April 9, 1897. "Another cold and wet day. The carpenters have plenty inside work however so they are at no loss what to do. The "coons" did not show up at all today which is just as well.

G.P. goes to Georgetown and buys provisions, 50 lbs. salt pork etc. Also purchases sash weights, cord, halyards, sash locks etc."

87. Red Cross Diary, April 10, 1897. "The carpenters get onto the front today and are doing well. The cornice is being placed-a plain [illegible word] and crown molding which looks very neat."

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88. Red Cross Diary, April 12, 1897. "All the help except Robert Jones at work today. Most of the carpenters on the front."
89. Red Cross Diary, April 12, 1897. "Randolph was given a weeks notice, and put in half a day today and left."
90. Red Cross Diary, April 13, 1897. "C.B. takes charge of the colored boys today and makes some good changes in the cellar. We have now nearly as much storage room in the cellar as up stairs. We will put a quantity of things below stairs soon and thus let up the upper rooms."
91. Red Cross Diary, April 13, 1897. "McDowell's thirty days leave expired tonight. We pay him \$35 balance, a total of \$65 for the month which is really more than the government gives him, or rather more than he makes, as his living was furnished him here. We arrange with Robert Green, a colored man living below Emma Jones, for \$15 a month with meals and agree to give him clothing from time to time."
92. Red Cross Diary, April 14, 1897. "We purchase ...sash weights, cord and other hardware, mostly for the front, at Walkers."
93. Red Cross Diary, April 14, 1897. "The carpenters begin putting the siding on."
94. Red Cross Diary, April 14, 1897. "Harrington sends his man out to estimate the work and flash the chimneys."
95. Red Cross Diary, April 15, 1897. "The tinner makes the estimate and states that the work will be about fifty dollars. Will not be over that figure."
96. Red Cross Diary, April 15, 1897. "Owing to the rain, little or no outside work can be done. The carpenters are putting in window sash and doing bench work. Two of the colored boys do not show up owing to the rain."
97. Red Cross Diary, April 16, 1897. "We start all the workers going and then go to town. Purchased another lot of lumber at Jackson's, banisters, newel posts, boards, etc. Mr. Mack, the manager, is the fairest lumber man we ever did business with. We ordered some white lumber of grade one according to the wishes of our foreman. Mr. Mack, when he knew what was wanted with the stuff, said grade two, costing much less, would answer our purpose just as well."
98. Red Cross Diary, April 16, 1897. "The tanners begin their work today."
99. Red Cross Diary, April 16, 1897. "The flag-staff is set in front April 16, 1897 and the Queen floats the Red Cross at the peak."
100. Red Cross Diary, April 17, 1897. "We are having a series of cold, windy days, making outside work very uncomfortable. Nevertheless the outside men are doing well. Our laborers are filling up the gullied spots in the inside roads and clearing the woods around the house of sticks, leaves and rubbish of various kinds."

101. Red Cross Diary, April 17, 1897. "Pay Randolph his last wages and give him a recommend to start him."

102. Red Cross Diary, April 19, 1897. "Thirteen at work this morning, not including the tinnerns.

The front has its first coat of paint and already is looking well."

103. Red Cross Diary, April 20, 1897. "The tinnerns hope to finish today."

104. Red Cross Diary, April 20, 1897. "The carpenters are anxious to get the scaffolding down from the front, as the [sic] want to use the stuff. Parks and Barker put the second coat of paint on. The body is in a light warm yellow, trimmings a medium brown, making a fine contrast. We are well satisfied with the progress of the work."

105. Red Cross Diary, April 21, 1897. "The tinnerns finish at noon, the scaffolding is down and the front looks very fine."

106. Red Cross Diary, April 22, 1897. "The upper veranda doors with Ress [sic] crosses of cherry red glass in the upper sash are very fine and will show well."

The "upper veranda" is the small balcony that is centered on the third floor of the front elevation. The "veranda door" is actually a casement sash that has been made to resemble a 9-over-2 double-hung sash. It is hinged on the side to operate like a door.

107. Red Cross Diary, April 23, 1897. "Carpenters working on front veranda."

108. Red Cross Diary, April 23, 1897. "Jarrett [is] building [the] summer cook house chimney.

It is not clear where the summer kitchen was. The construction of the summer kitchen chimney is described the diary entry of April 23, 1897, and illustration 3 in the Historic Grounds Report shows an outbuilding with a brick chimney (only the chimney is visible in the photograph). This building, located approximately 25 feet to the northwest of the house, may have contained the summer kitchen.

109. Red Cross Diary, April 23, 1897. "Barker glazing R.C. windows."

110. Red Cross Diary, April 24, 1897. "The R.C. stained glass door windows are hung today."

111. Red Cross Diary, April 24, 1897. "The colored boys lowering the inner back wall so carriages can drive into the back cellar if desired."

Based on diary entries there is some confusion over the location of the carriage house. One entry suggests that it is at the front of the house, which is unlikely since there would not have been sufficient clearance for a carriage. This entry indicates that the carriage house will be at the rear of the house, yet the phrase "inner back wall" is confusing.

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112. Red Cross Diary, April 30, 1897. "The carpenters finish the front veranda..."

113. Red Cross Diary, April 30, 1897. "...after consulting with Elder we direct the office partition at the back of the hall be constructed, some of the matched lumber for the vestibule is to be used as it is not needed in the vestibule."

This reference to the construction of a wall at the back of the hall suggests that the center hall was originally open all the way from the front of the building to the rear.

114. Red Cross Diary, May 4, 1897. "The workmen are papering and stretching the cotton on C.B.'s old room, getting it ready for the wall paper."

It is not clear what room this is. A March 28, 1897 diary entry tells us that "Miss Barton decides to move her sleeping room down stairs" so it is possible that the "old room" referred to here is a third floor room.

The staff at the Clara Barton National Historic Site believe that this entry refers to Room 305 which has a door at the back corner that led out on to a small porch which, it is believed, is where Miss Barton went to have semi-private conversations.

115. Red Cross Diary, May 4, 1897. "The colored boys are told not to come back until Wednesday. We decide tonight that we will only need the two Roberts, so we will let Philip Kager & Charley Jones go."

116. Red Cross Diary, May 7, 1897. "The first rooms [of] C.B.'s have been covered with the heavy builders paper and cotton cloth stretched, pasted and tacked over them. They are now all ready for the regular wall paper. They look very good as they are light and cherry [sic]."

The phrase "the first rooms of C.B.'s" suggests that the room being finished was the first bedroom occupied by Miss Barton. This would most likely be the third floor bedroom.

117. Red Cross Diary, May 8, 1897. "Order a lot of lumber which will be delivered Monday or Tuesday. Ordered hardware at Weaver's and find when it is delivered that the clerk has overcharged some items and made mistakes in others. A poor way of doing business. Our wages account is \$74.42, a total to date of \$643.44. We let one of our carpenters go tonight, Macky."

118. Red Cross Diary, May 10, 1897. "Jackson delivered a lot of lumber, but as it was rough and we had ordered dressed, most of it was sent back."

119. Red Cross Diary, May 10, 1897. "The carpenters begin work in the office. They are expert now in putting the paper and cloth on wall and ceilings."

120. Red Cross Diary, May 11, 1897. "Countermand the lumber order for fencing as Mr. Edwin Baltzley requested us early this morning not to build the fence until we heard from him, as Edward, the brother, had other plans."

121. Red Cross Diary, May 12, 1897. "We put the two Roberts and Charlie Jones to filling the nail and other holes in the sides of the house preparatory [sic] to painting. This work is under the supervision of Barker. We find that there are a great many chinks and holes to stop up."

122. Red Cross Diary, May 13, 1897. "The carpenters finish the large office and we move in the evening."

There are two rooms used as offices (Rooms 113 and 114), "large office" most likely refers to Room 114 since it is the larger of the two.

123. Red Cross Diary, May 14, 1897. "Everybody working well and the house is really getting into livable shape. We like our newly arranged office very well and when we can have the smaller room for a private office we think our Glen Echo offices will be much superior to the 17 & F st. offices, more get-at-able."

124. Red Cross Diary, May 17, 1897. "The carpenters papering the dining room and preparing the large east room next [to] the provision room for papering."

125. Red Cross Diary, May 17, 1897. "Barker and his colored men finishing the puttying and will begin painting tomorrow or Wednesday."

126. Red Cross Diary, May 19, 1897. "Purchase a lot of paint, 150 pounds white lead--\$8.50, two gallons turpentine--80 cts., and other articles amounting to \$10.25 total."

127. Red Cross Diary, May 28, 1897. "G.P. takes in mortise front door lock to get keys and also other vestibule door locks to match. Three locks, extra keys, new spring etc.--\$5.25. Very good." Mr. Baltzley thinks the members of his syndicate want to fence our house out of the reservation. We are willing for this to be done provided they will do it soon as we desire to improve our front yard.

128. Red Cross Diary, June 4, 1897. "Mrs. Sarah Earl [sic] arrived just before we did. She had kindly consented to repair a large stained glass window which had some of the panes of glass broken. She is an artist and will do the work well."

This is probably the stained glass window purchased from Gleeson's stables on March 14, 1897.

129. Red Cross Diary, June 10, 1897. "The men commenced fully on the parlor chamber--think it will take nearly a week to complete it--some more stuff needed."

130. Red Cross Diary, June 11, 1897. "Mr. Edwin Baltzley came-he wants to get hold of 250 Dolls. twice, once to pay his help tomorrow night--one next Sat[.] night. This will let him open he thinks. I had no money to lend, but if I had the means would like to extend my grounds 500\$ worth if I could afford their price-I have no one here to advise me."

With the bankruptcy of the National Chautauqua, the Baltzley's financial security was imperiled. More than once they turned to Miss Barton for loans, or assistance through the purchase of additional property.

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131. Red Cross Diary, June 12, 1897. "Decided that it would be wise to get more land about my house and relieve Baltzley for his stress with his help-if he cannot pay them anything tonight they will stop work and prevent him from getting ready to open his place for profits. I go to town via P.O., have a talk with both baltzleys [sic]--they want to let me have 5000 feet of land about my house at ten (10 cts) cents p [per] foot, to be located later."

"Mrs. Earle has finished her beautiful window, a perfect success....I speak with Baltzley about telegraph. Mr.--- is a tel. operator, B. will see the W U [Western Union] today and try to have them extend the service here."

"Let Edwin Baltzley have two hundred (200) dollars to pay off his men tonight. He has seen the Western Union superintendent and brot [sic] him out--he will put up a wire and we will have telegraph service in one week from now. The telephone will follow, having our boxes in our own houses to connect with the central Glen Echo and from there to the city."

"Paid the help & all left but Elder. Mr. Elder says it will take three weeks to make over the "well". This surprises and pains me. There is however but little cost in it, except the labor, but it will keep the work on all summer."

132.Red Cross Diary, June 14, 1897. "The new window was in place."

This is probably the stained glass window that was just repaired.

133. Red Cross Diary, June 15, 1897. "Go into city with Mr. Elder to get lumber..."

134. Red Cross Diary, June 23, 1897. It is not clear what this entry is in reference to. The diary later references an "upper rear veranda". These are probably the same feature, and both identify a porch that was accessed from the door at the rear of Room Number 305.

135. Red Cross Diary, June 25, 1897. "McDowell came, I looked things over with him, decided the house trimmings were too dark and run straight across the grain with Barker in saying they must be done over their original color--made the house too brown, and somber. Decided to have the stone piers smoothed over and colored like the rest of the house."

In the original color scheme the house had a body color of light yellow and the trim was painted brown. Here Miss Barton is expressing her feeling that the colors are too somber. The brown trim color was replaced with white.

Smoothing over the stone piers is almost certainly a reference to the inside faces of the piers that flank the front facade. Since the piers were part of the original stone facade, a jagged edge was left where the demolition stopped. As can be seen today, this rough edge has been smoothed over with cement parging (see Figure 6). Photographic evidence and remnants of paint on the piers clearly show that the piers were indeed painted to match the house (see Figure 7).

136. Red Cross Diary, June 26, 1897. "Advised the work for the day--to finish the vestibule and the side of the hall next to the chimney, had a hole cut and pot put in."

137. Red Cross Diary, June 26, 1897. "Desired a new chimney for the parlor chamber, closing in the side of the stone pier. We all think it will be a good scheme for warming those rooms."

138. Red Cross Diary, June 26, 1897. "We did something towards clearing my chamber to be ready for the men tomorrow. I move down to my first room and sleep there."

This entry suggests that she has been sleeping upstairs. It is not clear which room is her "first room" although this is same phrase used to describe the room that was finished on May 7, 1897.

139. Red Cross Diary, June 28, 1897. "Poor Elder slipped away last night and has not returned. The others go on with the work of the vest [vestibule], upper room."

The reference to the "upper room" may be Miss Barton's bedroom, which she vacated just two days before.

140. Red Cross Diary, June 28, 1897. "I go to the cellar and lay out a room to be made up there for furniture storage. That will be the next work, and will let up the two other top rooms to be finished up. We are all very glad of the idea, it will relieve the house very much."

141. Red Cross Diary, June 29, 1897. "Park & Flanagan go on with the Upper chamber;"

142. Red Cross Diary, June 29, 1897. "I stop the wood team. take the two Roberts to the cellar, show them all we desire to have done in stone and ground work about the house--set them at work getting the cellar cleared, and cleaned for the two room viz the furniture and the carriage."

Reference to the "wood team" is probably the crew gathering fire wood.

143. Red Cross Diary, June 29, 1897. "At 3 mr. Edward Baltzley came to speak about the fence, but did not see how it could be made till the land was surveyed, of course. I had some conversation with him; they want to "open" on Thursday to the Public. I asked him incidentally if the purchase of another bit of land for \$250.00 dollars would be any help to them just now? He replied that I could form little idea of how much it would be to them, and just at this moment. I drew a check on Brown Bros. for 250 dollars and took his receipt. When G.P. returns we will have the land surveyed, and properly fenced. I was so glad that I could put a little money into their hands just now, and glad of the increase of my lot."

The agreement in the earlier land purchase was that the land would be surveyed at a later date, hence Miss Barton's assertion that the fence could not be built until after the land was surveyed.

144. Red Cross Diary, June 30, 1897. "I arranged my lower chamber a little and we put up all the old curtains aro [sic] the house."

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145. Red Cross Diary, July 2, 1897. "The hall is full of furniture gotten down from the upper rooms to be taken to the new room in the cellar to be finished today--it will be 15 by 25 feet.

The whole house is in activity with the removal and cleaning up--and oiling of the new furniture that goes to the cellar."

146. Red Cross Diary, July 7, 1897. "At some time in the P.M. the clouds gather--the wind took possession of them and we had nearly a tornado, the rain drove in at every crack,..."

Whether this is a literal reference, or figurative, is not known.

147. Red Cross Diary, July 9, 1897. "At home all is pushing on the carpenters are in the topmost room--"

148. Red Cross Diary, July 9, 1897. "...the colored boys are laying the stone in the front cellar for the carriage house."

The reference to the "front cellar here is initially confusing since the carriage house could only be at the back of the house. However, since the cellar opens out to grade at the back of the house, the back of the house itself could be considered the front of the cellar.

149. Red Cross Diary, July 13, 1897. "The little uppermost room is hardest of all to do up, if I had given due thought to it, or had anyone to confer with, I might have thought to let it go for a garret, and not finish it. I feel that the time could have been better put in otherwheres--"

The fact that she speaks of the room in the singular suggests that it may be the center room (Room 303) rather than either of the end rooms. This is further supported by the fact that Miss Barton typically referred to Room 303 as either the topmost room or the upper most room.

150. Red Cross Diary, July 15, 1897. "go to the top room to direct the work..."

151. Red Cross Diary, July 16, 1897. "The men finish the top room, and commence upon the inside finishing up of the rooms and cupboards; doors etc."

152. Red Cross Diary, July 17, 1897. "...work of the Office cupboards and doors [page torn] commences today. I have the doors covered [with] bed ticking for strength; they will be a success."

153. Red Cross Diary, July 19, 1897. "The men make doors, finish off cupboards in the two offices. Len Barker goes to Georgetown for hardware."

154. Red Cross Diary, July 22, 1897. "The help all works well, the men are on the carriage house in the cellar. The boys pointing the stone piers of the house."

The reference to "pointing" is probably the smoothing over referenced in the June 25, 1897 diary entry. This was done prior to painting the stone piers.

155. Red Cross Diary, July 24, 1897. "The carriage house is getting on finely--all old short lumber, no cost but the labor."

156. Red Cross Diary, July 25, 1897. "Decided on fitting up the mens old room, for a cupboard room entire room with all the shelves it will bear, and snug doors, to hold all periodicals, pamphlets in stock to let up the boxes of printed matter. That will be the Armenian Reports. The little Bill reports and all such matter to be kept in perfect order, dark, fresh and ready. I am very much gratified by the prospect of this room--it will be finished the coming week if all goes well. This will admit of clearing out nearly all of the boxes of papers, trunks and bureaus, putting it all where it can be gotten at by simply opening a door. This leaves all the office shelves and all the 15 book cases for current papers of the work and for books."

It is not clear what room this is.

157. Red Cross Diary, July 25, 1897. "We go to the spring and decide to have a milk box set in it and a case made fr [from] a half barrel. This will make the great need of ice less imperative."

158. Red Cross Diary, July 25, 1897. "A safe is also planned."

159. Red Cross Diary, July 26, 1897. "Commenced early on the spring--Barker, Robert Jones & Robert Green. McDowell happened to come and gave valuable assistance. Sunk a barrel and set a milk fox [sic; box?] for running water, well laid in cement. I stood by it all day, never leaving nor sitting down; an excellent piece of work, water cold and pure as crystal."

160. Red Cross Diary, July 28, 1897. "The carpenters are "finishing up" the back end of the house.

The "boys" are painting the stone work."

The stone work referenced here is most likely the stone piers that were "pointed" or "smoothed over" five days before. This is in keeping with the declaration in the June 25, 1897 diary entry that they have "Decided to have the stone piers smoothed over and colored like the rest of the house."

161. Red Cross Diary, July 29, 1897. "The men are finishing up the carriage house, and we have decided to make a paper room of the room where the boxes are, on the north side near the stairs."

162. Red Cross Diary, July 30, 1897. "The work goes on as usual, carriage house finished and other jobs gotten out of the way."

163. Red Cross Diary, July 31, 1897. "The men move all the boxes once more into the hall, to get the room ready to work in."

It is not clear here which room is to be worked on.

164. Red Cross Diary, August 1, 1897. "Spent half the day with El [Elder] planning the changes in the house--will narrow the hall to twelve feet, make trunk closets on each side. Take the store room for papers, make a pantry & storeroom of the large room next the kitchen."

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165. Red Cross Diary, August 1, 1897. "Make a room in the lower kitchen for servants sleeping room, put a new floor of planed boards--use those [there] for a walk--decide to go to town in the morning, get the lumber..."

166. Red Cross Diary, August 2, 1897. "Left early with Elder for town to get a bill of lumber. Went to McDermitts to see carriage--it is well done, will be sent up when we send for it. they will look for the harness--do not know if they have it.

To Libby's for lumber--bot it cheap, we think--a bill of over \$60 delivered."

167. Red Cross Diary, August 2, 1897. "Barker and the boys have nearly made old Auntie a house of our old carriage shed, and the new chimney. The work goes on well."

The old carriage shed was apparently a free standing structure that was located on the northwest side of the house. It is just visible in the lower right corner of an historic photograph (see Figure 8).

Auntie served as the caretaker of the Glen Echo building for a short period just before the headquarters was relocated there in 1897.

168. Red Cross Diary, August 3, 1897. "The work moves on steadily--silently--a spell seems to have come over all--no words, quiet faces and steady work.

The north side of the house is being shored up with the aid of jack screws--and bridged." Barker and boys work on Auntie's house.

The shoring and bridging work is probably related to the excavation of the cellar.

169. Red Cross Diary, August 3, 1897. "Two loads of lumber come from Libbeys."

170. Red Cross Diary, August 4, 1897. " Hung lace curtains in from [front?] of house.

Auntie takes possession of her room with a little speech--"What shall I ever do for you? You's done more for me than any other pursen [sic] in de world would do. You's built me a house!! my own chillens never did that. I trys and trys to think what ever I can do for you." Poor good old Auntie. She does all she can, and is grateful.

The carpenters lay the new floor in the basement and make up a sleeping room for a servant."

171. Red Cross Diary, August 5, 1897. "The work of finishing up in cellar Kitchen & old Auntie's room goes on--we set the stove for Auntie."

172. Red Cross Diary, August 6, 1897. "Telephoned from Emrichs [sic] to Libbeys for more lumber--the last load of our lumber came today."

173. Red Cross Diary, August 9, 1897. ...**"Get up and go over the house to see to windows--weather clear an [sic] fine at 8. Work goes on as usual--men finished the cellar windows on north side--com [commence] on Sou [sic]."**

"Elder hangs parlor chamber doors. Barker & boys work on stone work--piers...."

"The lower kitchen done--whitewashed, ready for use--a good kitchen with a servants room."

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"Elder hangs parlor chamber doors. Barker & boys work on stone work--piers...."

"The lower kitchen done--whitewashed, ready for use--a good kitchen with a servants room."

It is not clear if these are the stone piers on the front elevation, or if this work relates to the basement walls and the installation of the basement windows.

176. Red Cross Diary, August 9, 1897. ...**"Get up and go over the house to see to windows--weather clear an [sic] fine at 8. Work goes on as usual--men finished the cellar windows on north side--com [commence] on Sou [sic]."**

"Elder hangs parlor chamber doors. Barker & boys work on stone work--piers...."

"The lower kitchen done--whitewashed, ready for use--a good kitchen with a servants room."

177. Red Cross Diary, August 10, 1897. **"The big doors for the cellar & carriage house being made today, piers painted, ... cellar whitewashed day by day, evening [everything?] done."**

178. Red Cross Diary, August 12, 1897. **"Mr Elder makes a draft of the well reduc [sic] and the work is commenced today."**

The "well" refers to the light well in the center hall of the house. The term "reduc" may indicate that the size of the opening was reduced, which would have been the case if the center hall was originally built like that of the Johnstown Hotel (see historic photo - Figure 9).

179. Red Cross Diary, August 12, 1897. "The stone piers are finished whitewashing."

Since the physical evidence clearly indicates that the stone piers on the front of the house were painted and not whitewashed, the reference to stone piers here must refer to the stonework of the basement walls. There is no evidence that the exterior of the foundation walls were whitewashed, so it is most likely a reference to the interior surface of the walls which were historically whitewashed.

180. Red Cross Diary, August 13, 1897. "The men commence the "well." The vault windows are whitewashed. Barker paints the all office & dining room doors."

181. Red Cross Diary, August 14, 1897. "I set the men to get the carri[age h]ouse ready--clear it out, whitewash.

182. Red Cross Diary, August 15, 1897. "At evening Mrs Reynolds and son came. The same good bright helpful woman. She requests her son to put in electric bells throughout the house; he and Steve hold an electrical conference on the subject and decide to put several call bells over the house, commencing with the front door bell..."

183. Red Cross Diary, August 15, 1897. "Mr. Reynolds will also see Mr. Baltzley and survey my land."

184. Red Cross Diary, August 17, 1897. "The men have reached the balustrade of the "well," it is much improved--they are getting on well."

185. Red Cross Diary, August 17, 1897. "The "boys" are "pointing up" the carriage house and woodhouse wall against rats & vermin."

In this case the carriage house is most likely the old carriage house, now Auntie's residence.

186. Red Cross Diary, August 18, 1897. "Mr. Jarret's [sic] son came to see if he could do the work his father would if here (he is in Virginia) and will come out on Thursday to build the parlor chimney. The boys will make the foundation--fill up the ditch, level off the surplus earth and make a last garden bed & sow turnips & start lettuce etc."

This would be the chimney first mentioned in the June 26, 1897 diary entry, "Desired a new chimney for the parlor chamber, closing in the side of the stone pier."

187. Red Cross Diary, August 20, 1897. "Ned Reynolds, the son of Mrs. Harriet came this morning to put in electric bells--"for fun." This is what he said he wanted for his pay, so we turn the house over to him to have a good time having bells. We assign Barker and Elder to assist Reynolds. They nearly finish with the wire and will put in the batteries early next week. He is making a fine thing, and will be a good improvement."

188. Red Cross Diary, August 21, 1897. "The carpenters are making an excellent flight of stairs leading up to C.B.'s room on the third floor. Widening the upper platform and building two splendid closets each

of which has a window making them very light. The colored boys are cutting down some objectionable trees and grubbing up the roots, on the east side of the house--another improvement."

189. Red Cross Diary, August 23, 1897. "Mr. Reynolds came and finished stringing the wires & hanging bells. The success is perfect. We have, beside the front door bell: a call buttons in dining room floor where the Queen sits, two in the office at C.B.'s & G.P.'s desks. Parlors & chambers take the balance of the eight. Mr. Edward Baltzley came and consulted about the property Miss Barton purchased around her house. He remained several hours figuring as to the number of feet and the most desirable apportionment of the square fee[t]."

"Mr Reynolds will come out in a few days and survey the property."

What appears to be an original push button from the call bell system remains on the southeast wall of Room 301. A second original push button can be found in room 305. A length of wire similar to that connected to the push button is can be found on the underside of the floor joists in the front section of the center bay in the basement.

190. Red Cross Diary, August 25, 1897. "The boys are cutting more trees down from around the house which improves the property greatly."

191. Red Cross Diary, August 26, 1897. "On our return home we find Mr.Reynolds. He had run the surveying lines and staked the plot off. Some changes must be made as Oxford St. if maintained according to the original survey runs almost on a line with the walls of the house at the back, cutting off the road to the carriage house, the dry sustaining wall and all of the garden."

192. Red Cross Diary, August 27, 1897. "Mr. Edward Baltzley calls and agrees to have the section of Oxford road back of our house vacated so we can save our road to the carriage house, our dry wall and garden."

193. Red Cross Diary, August 28, 1897. "We have decided to go to Vienna ... We notified the carpenters tonight that next Saturday would close their work here for the present, we may want them on our return, if they are not engaged."

194. Red Cross Diary, August 30, 1897. "We find our water drain on the East side of the house is all right and will carry off all the water. Mr. Edward Baltzley looked over the land C.B. thinks of buying. Reynolds called and surveyed the land this afternoon. This with the land already purchased will make a little over 21,000 square feet."

195. Red Cross Diary, August 31, 1897. "The colored boys begin on the new wall which is to extend to our new boundary line. Mr. Reynolds sent home our new plat and map which gives a clear and comprehensive idea of the property which is a little over 22,000 square feet."

196. Red Cross Diary, September 2, 1897. "The carpenters begin on the closets on the lower floor. The coons are building very fine drywall, taking all our new property."

197. Red Cross Diary, September 4, 1897. "A week ago today we notified the carpenters that we would close down the work tonight, but during the week we decided to retain Elder & Parke, letting Flanigan go."

198. Red Cross Diary, October 15, 1897. "The lath from Libbey's came today, also some molding which was not according to order so was sent back. Robert & Charlie hauling sand for plastering."

This is the first reference to the use of lath and plaster in the house.

199. Red Cross Diary, October 16, 1897. "Dr. H. is to have the room next [to] G.P. and Barker will plaster it. This will give the Headquarter's officers the three adjoining rooms which will make it very pleasant."

200. Red Cross Diary, October 17, 1897. "...molding for hall came from station."

This is most likely the replacement for the molding that was returned two days before.

201. Red Cross Diary, October 18, 1897. "Carpenters nearly finished [with] the halls."

202. Red Cross Diary, October 19, 1897. "Cleaned Dr's room for the plaster. Barker lathed vault rooms."

The vault rooms may be the second floor rooms along the front of the house.

203. Red Cross Diary, October 20, 1897. "Men mixed mortar [plaster?] in two large beds. Carpenters got Dr's room ready for lathing. Emma & C.B. cleared the next room for the men."

204. Red Cross Diary, October 21, 1897. "Barker lathed Dr's room. Carpenters got middle room ready to lathe. Moved trunks from upper hall to lower and commenced to put them in the new hall cupboards--"

205. Red Cross Diary, October 22, 1897. "Barker & Charlie lathed middle upper room."

206. Red Cross Diary, October 22, 1897. "Elder began the pantry."

207. Red Cross Diary, October 22, 1897. "Rest of the house continue to clear rooms and move ponderous boxes below. All the trunks go in the hall cupboards--"

208. Red Cross Diary, October 23, 1897. "Carpenters work on pantry change partition & make room smaller."

209. Red Cross Diary, October 23, 1897. "Barker plasters Dr['s] room--Dr. cleared tool room."

210. Red Cross Diary, October 25, 1897. "Carpenters nearly finish pantry."

211. Red Cross Diary, October 27, 1897. "Carpenters commened [sic] on closets in my room--"

212. Red Cross Diary, October 29, 1897. "Barker plasters big chamber. Carpenters finish my closets & begin store room."

It is not clear which rooms were the "big chamber" or the "store room".

213. Red Cross Diary, October 30, 1897. "Moved the pantry to the new qrs."

214. Red Cross Diary, November 2, 1897. "Barker plasters."

215. Red Cross Diary, November 3, 1897. "Dr's room is being finished."

216. Red Cross Diary, November 3, 1897. "We are now all moved to the new pantry & storeroom, the old store room plastered, the tool room also."

217. Red Cross Diary, November 10, 1897. "Bot stove at Harringtons, pipe, damper--[$\$$] 5.00. Put it up in C.B. room."

218. Red Cross Diary, November 15, 1897. "Decide to remove the stair way & the stained glass window 6 feet west in order to enlarge the second floor front room and gain a library. Mr. Elder reckons it at one weeks work."

219. Red Cross Diary, November 17, 1897. "Emma clears the room for the stairs to make ready for the "library" room."

220. Red Cross Diary, November 22, 1897. "All the rooms are finished up except the upper front and stairway."

221. Red Cross Diary, November 26, 1897. "Dr. Goes to town, gets hardware at Weavers.---- Lumber at Libbeys for walk--1100 ft., $\$9.50$ del."

222. Red Cross Diary, November 27, 1897. "Lumber for the walks came from Libbys. Boys saw up all the old boards to lay down."

223. Red Cross Diary, December 1, 1897. "Commence the boardwalk from the house to the platform. All but carpenters work on walk."

The "platform" is the waiting area constructed at the trolley line.

224. Red Cross Diary, December 2, 1897. "The walk half done--have lumber enough to finish it."

225. Red Cross Diary, December 3, 1897. "Too wet to continue the walk, put the boys to point [paint?] the vault cellar--get it ready for the fruit."

This is the small room in the basement formed by the foundations of the masonry vault (see Figures 10-12).

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226. Red Cross Diary, December 3, 1897. "Carpenters take down stairs and window."
227. Red Cross Diary, December 3, 1897. "...the boys still on the little cellar work."
228. Red Cross Diary, December 10, 1897. "Boys finish the walk, carpenters on stairs, & closet."
229. Red Cross Diary, December 11, 1897. "After breakfast all took a walk up the new walk to the platform & arranged for the little waiting room to be made tomorrow."
230. Red Cross Diary, December 13, 1897. "...at 4 we went with her to the station, where the new shelter was buildingThe carpenters made up the little shelter at the platform, all helping."
231. Red Cross Diary, December 14, 1897. "General work interrupted by the rain. Men driven off from the walk and little shelter. Elder gets out stuff for corner office cupboard [sic]. "
232. Red Cross Diary, December 14, 1897. "Dr. goes to town. Gets stove at Harringtons \$5.50. Sash weights--\$5+, padlock for upper vault--[\$.50--hinges for library doors, nice, screws nails & hooks galore--bill abt. \$18.00."
233. Red Cross Diary, December 15, 1897. "The men can finish up at the platform. We have a shelter."
234. Red Cross Diary, December 15, 1897. "Dr. puts new stove in L office."
235. Red Cross Diary, December 16, 1897. "Dr. & C.B. go early to city to meet Emma who goes to Libby's for lumber."
236. Red Cross Diary, December 16, 1897. "Decided at breakfast to shelve the cellar vault, which Elder did."
237. Red Cross Diary, December 16, 1897. "Parker worked on west chamber floor, planing down. C.B. tells him she will not have work after this week."
238. Red Cross Diary, December 16, 1897. "Dr. & C.B. Barker & Charlie paint platform house..."
239. Red Cross Diary, December 16, 1897. "Dr. orders a drum for parlor chamber."
- A drum is a device for capturing the heat from the exhaust gasses in a stove pipe. In this way, two rooms can be heated by only one stove. Typically, the drum was installed in the room above the room where the stove was located, so in this case, the parlor chamber was most likely the room above the parlor (Room 218).
240. Red Cross Diary, December 18, 1897. "The business of the day is stoves, the office stoves are overhauled, the pipes changed, carpets about them also changed. The hole cut for a drum in parlor chamber. Order sent to Harrington to make a drum [\$3.00 one] send up on train, did not arrive."

241. Red Cross Diary, December 20, 1897. "The stoves of the house are our greatest interest for the moment. Dr. goes for our drum at Harringtons--it comes, very nice. He places the stove in the parlor, puts up the drum and the success of warming that portion to our untried castle is well assured."

242. Red Cross Diary, December 20, 1897. "Barker is too ill to work, and the stairs remain in status quo, but the little corner cupboard in office is made & a most perfect thing it is."

243. Red Cross Diary, December 21, 1897. "Dr. worked on stoves in general."

244. Red Cross Diary, December 22, 1897. "Elder got up doors for library. "

245. Red Cross Diary, December 23, 1897. "Barker white coated the stair-case."

White coating may refer to the application of a coat of primer.

246. Red Cross Diary, December 24, 1897. "We get stove into vestibule & send for drum for library. Harrington makes our drums complete for \$3.50 each. The heating apparatus was all the Dr's day."

247. Red Cross Diary, December 24, 1897. "Barker & Charlie burn off the paint from the old glass door to the library."

248. Red Cross Diary, December 27, 1897. "Dr....puts up drums in front--finished."

249. Red Cross Diary, December 27, 1897. "Elder put up lower half of stairs. Barker hard finishing lower stair way..."

250. Red Cross Diary, December 29, 1897. "Elder makes partitions for hall."

251. Red Cross Diary, December 29, 1897. "Barker lays walk up to door step."

252. Red Cross Diary, December 30, 1897. "The partitions are being made, stair case plastered ...all getting to an end soon."

253. Red Cross Diary, January 3, 1898. "The work all left, partitions not finished, house open..."

254. Red Cross Diary, January 5, 1898. "We finish the lower partit [partitions]. Barker puts one up. Em & C.B. put [up] portieres, change the stove in vestibule to a direct pipe--drum doesn't work with our green wood. drips

255. Red Cross Diary, January 7, 1898. "Emma has cleaned up the unfinished [sic] library."

256. Red Cross Diary, January 13, 1898. "Andy commenced work on the stair case..."

257. Red Cross Diary, January 14, 1898. "Andy doing stairway."

258. Red Cross Diary, January 14, 1898. "Charlie lathes little room."

259. Red Cross Diary, January 15, 1898. "Elder works on stairs."

260. Red Cross Diary, January 17, 1898. "Elder at work finishing stair rail, goes to town, gets lumber..."

261. Changes in the floorboards on the second floor of the center hall hint at the original size of the light well. Historic photos show that the Johnstown shelters had only narrow catwalks on the long sides of the light well and it appears that a similar condition may have existed at the Clara Barton House. On the northwest side of the light well the flooring changes suggest a catwalk approximately 3'-9" wide while on the southeast side, it appears that the catwalk was only 2'-9" wide.

At either end of the catwalk, flooring changes suggest that the light well extended to within 5'-4" of the existing southwest wall of the library (Room 201) and to within 6'-3" of the existing northeast wall of Miss Barton's sitting room (Room 212).

262. Diary entries from the 1897 rehabilitation suggest that when the Clara Barton House was constructed in 1891 the interior walls were left unfinished. If this was the case, it is unlikely that any interior trim was installed at that time.

The many types and combinations of trim that are currently in use in the house (see illustrations 1 and 2) make it difficult to speculate on when each was installed. The use of salvaged materials in the 1897 remodeling opens the possibility that several different types of trim from several different sources may have been installed simultaneously.

Paint analysis may present a method for establishing the sequence in which the different types of trim were installed. Salvaged lumber may have already been painted before its use at the Clara Barton House which would introduce extraneous paint layers nearest the surface of the wood.

263. Red Cross Diary, October 4, 1898. "Miss Barton has for some time contemplated the building of a stable... It is today begun."

264. Red Cross Diary, December 2, 1898. "...[the stable is] newly done, horses in."

265. Red Cross Diary, December 9, 1898. "Mr. Elder and young Ernest Houghton are building a shed--an adjunct to the barn"

266. Red Cross Diary, December 21, 1898. "Miss Barton has decided to have the fireplace in the back parlor [Room 118] tiled, and Reginald Procter, the young man working here, is to do the work."

267. Red Cross Diary, December 27, 1898. "...lumber to finish up the shed which is now nearing completion."

268. Red Cross Diary, December 29, 1898. "A Mr. Fowler called to see about putting in a telephone, and it is decided best to have one."

269. Red Cross Diary, May 3, 1901 "Mr. Kenedy came to tell me I could have all the ground in front by fencing it..."

270. Red Cross Diary, May 7, 1901 "Mr. Canada finish [sic] the fence around the front lot..."

271. Red Cross Diary, August 22, 1901 "Made up the new hen house with Harold."

272. Red Cross Diary, September 2, 1901 "Mr. Garrett...thinks to come out and put pipes in the tops of the front chimneys to increase the drafts."

273. Red Cross Diary, September 24, 1901 "Silas & Andrew dig out the cellar--lay a brick bottom in fruit cellar."

274. Clara Barton House Historic Structure Report, Charles W. Snell, 1977, p. 61.

275. Clara Barton House Historic Structure Report, Charles W. Snell, 1977, p. 61.

276. Red Cross Diary, August 22, 1902 "The house roof is done and the painting on the body commenced."

This entry suggests that the roof the house also received a coat of paint.

277. Clara Barton House Historic Structure Report, Charles W. Snell, 1977, p. 61.

278. Red Cross Diary, November 2, 1902 "Dr. and Ernest fitted the hot water pipes to carry hot water to bath room, etc., also put up hand rails by the stairs"

According to the diary entries, provision was made for hot water piping when the building was rehabilitated in 1897. It is not clear what the reason for this plumbing work is. It is also not known which stairs are being referred to here.

279. Red Cross Diary, November 10, 1902.

This is the shed that was built adjacent to the stable.

280. Red Cross Diary, December 12, 1902 "I change my room for GP's for the winter."

"GP" stands for George Pullman, whose old room (Room 212) was located between Miss Barton's Bedroom (Room 213) and Dr. Hubbell's Bedroom (Room 211)

281. Clara Barton House Historic Structure Report, Charles W. Snell, 1977, p. 61.

An August 25, 1891 diary entry describes the kitchen and pantry floors as being constructed of "white pine".

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282. Hubbell to Barton, Glen Echo, MD, June 29, 1903, Clara Barton Papers, Library of Congress, I-69. "Screen doors in front below and above and on to the back door above on the upper porch, and also on the swing windows above."

283. Red Cross Diary, September 16, 1903.

284. Red Cross Diary, October 30, 1903.

285. Red Cross Diary, November 5, 1903.

286. Red Cross Diary, November 12, 1903.

287. Red Cross Diary, November 13, 1903, "I pay Ernest Houghton for plastering up the cellar under the floors to keep the smell of the damp from the parlors--\$3.07."

Since this problem persists today, this treatment was not entirely successful.

288. Red Cross Diary, December 16, 1903.

289. Red Cross Diary, April 30, 1904.

290. Barton to Lucy Hall Brown, Glen Echo, MD, July 27, 1904, Clara Barton Papers, Library of Congress, II-37. "They will have those rooms on the lower floor. The little room on the right of the hall and the store room nearly opposite. It is no longer a mere storeroom, but a large pretty room with a nice bed, four great closets, two windows..."

291. Clara Barton Diary, March 22, 1906.

This is the only mention of doors associated with the stairway. It is not clear where these doors were located.

292. Clara Barton Diary, April 21, 1906, "the garden side of the house was painted as high as can be reached."

293. Clara Barton Diary, May 19, 1906, "A leak in the cellar boiler--Dr. mends it."

294. Clara Barton Diary, May 20, 1906.

It is likely that the original hot water heater was associated with the kitchen stove.

295. Clara Barton Diary, September 27, 1906.

296. Clara Barton Diary, October 9, 1906.

297. Clara Barton Diary, November 21, 1906.

This is almost certainly the basement kitchen.

298. Clara Barton Diary, March 25, 1907. "We clear the lower store room, putting all its boxes in the upper east chamber, put two beds in the store room and make it pretty for them as their own room. This makes a general store room of that large front chamber never much used before..."

299. Clara Barton House Historic Structure Report, Charles W. Snell, 1977, p. 62. "In July and August 1907 the exterior of the house, including the roof, and the interior were again repainted. The first floor kitchen and pantry and their floors were painted. The cellar kitchen and other cellar rooms were whitewashed in late August."

300. Clara Barton House Historic Structure Report, Charles W. Snell, 1977, p. 62. "'A Mr. Clark [carpenter] and Ernest" repaired the third-story "portico at the back [south end] of the upper stairs."

It is not clear what this feature was. Snell appears to interpret it as the "veranda" off of the rear of the third floor.

301. Clara Barton Diary, April 10, 1908. "...new walk up through the garden..."

302. Clara Barton Diary, November 11. "I [Clara Barton] am relieved of all responsibility for Glen Echo."

303. Clara Barton House Historic Structure Report Addendum, Elizabeth Brown Pryor, 1978., p. 7.

304. Clara Barton Diary, January 19, 1910.

305. Clara Barton Diary, December 9, 1910. "[Installed] closing apertures where the winds got through. It was really the putting on of double windows, but better."

306. Clara Barton Diary, December 10, 1910.

307. Clara Barton House Historic Structure Report, Charles W. Snell, 1977, p. 63.

308. Clara Barton Diary, July 11, 1911. "Dr. is making a seven foot portico in front of our widows. I don't know how serviceable it will be."

This "portico" was very likely the two-story porch that was on the back of the building outside of the dining room and Dr. Hubbell's bedroom and above the later garage. The original portico may have simply been a balcony outside the Dr.'s bedroom.

Miss Barton's diary describes the portico as being outside "our" windows. The conclusion that this portico and the rear porch are the same is supported by the fact that the windows in both Room 212, her sitting room, and room 211, Dr. Hubbell's bedroom, opened onto the porch and had been altered to operate like casement sash, providing access to the porch from both rooms (see Figure 14).

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309. Clara Barton Diary, August 3, 1911. "Dr. has his porch nearly done--it is very pretty--almost like a settee in the woods."

310. Clara Barton House Historic Structure Report Addendum, Elizabeth Brown Pryor, 1978, p. 8.

311. Unidentified Newspaper clipping, May 3, 1926, Library of Congress, Clara Barton Papers, Series 1, No. 87.

312. Letter to Mrs. Daisy St. James Sweitzer from Frank Higgins, Attorney at Law, September 22, 1920, Mrs. Hirons File, Clara Barton National Historic Site.

313. Mrs. Josephine Franks Noyes was an old friend of the Hubbell family who occupied the Clara Barton House along with her four sisters while continuing to rent out the remaining rooms. During the 1940s the second floor front room (used by Miss Barton as a library) lost its wainscotting, its cloth ceiling was replaced with gypsum board and one of the two wood framed archways was enclosed to create a kitchen (see Figure 53).

Also during Mrs. Noyes tenure, a section of the basement floor was covered with a concrete slab, and a small first floor bathroom was installed in the space beneath the main stair (Room 106). Sometime before Mrs. Noyes death in 1958 the small balcony that was accessed through the door in the third floor rear room was removed.

314. By now the stable and adjacent shed have been demolished. The stone foundation of the stable was retained and filled with soil to serve as a kitchen garden.

315. Sometime in the late 1950s or early 1960s, a one-car garage was constructed against the rear wall of the house at the west corner (see Figure 26). Above the garage, a lower level of the porch that was constructed in 1911 by Dr. Hubbell was expanded to incorporate the entire area of the garage roof.

316. The Friends of Clara Barton, Inc., a not-for-profit organization, was created through the efforts of Mrs. Charles Stevenson who was affiliated with the Montgomery County Chapter of the American Red Cross. The group quickly raised enough for a down payment on the property.

317. The galvanized water pipes are replaced with copper pipes and the discharge from the sump pump is connected to the waste line.

318. Clara Barton National Historic Site, Restoration Diary, February 14, 1979.

319. Clara Barton National Historic Site, Restoration Diary, April 5, 1979.

320. Clara Barton National Historic Site, Restoration Diary, May 16, 1979.

321. Clara Barton National Historic Site, Restoration Diary, May 29, 1979.

The diary reports the type of beaded board that is used on the vestibule wall is known as "Philadelphia bead".

322. Clara Barton National Historic Site, Restoration Diary, June 15, 1979.

323. The first floor structure is reinforced when the original wood beams are replaced with steel, and the random assortment of wood and concrete block support posts are replaced with steel columns (see Figure 15), existing 2 x 8 floor joists are supplemented with additional joists.

The boiler and the propane tank that were located in the basement are removed along with the existing cast iron radiators that were then in use to heat the house. A new heating system is installed utilizing baseboard hot water radiators. In spaces designated as quarters, fan coil units are installed. In addition to providing heat, the fan coils are supplied with chilled water from a new compressor unit to air condition the living quarters. A new boiler is installed in a purpose built shed approximately 150 feet to the northwest of the house. The boiler is connected to the house by underground piping.

The exterior wood trim and siding are repainted to recreate the historic color scheme, and a new standing-seam metal roof is installed.

324. The suite of rooms at the rear of the first floor were restored. The existing wall finishes were removed from the south corner office and the dining room and the fabric ceilings of these rooms and the center office were removed. New muslin walls were installed and painted. While the ceiling finishes were off, the floor/ceiling structure above these three rooms was reinforced through the addition of additional joists (see Figure 16). New joists were installed between the existing joists, doubling the number of joists and decreasing the joist spacing by half. Like the walls, the fabric ceilings in these rooms were painted. The perimeter walls of these three rooms have been insulated with 3½ inch foil backed batt insulation (see Figure 17).

On the second floor, Clara Barton's bedroom also received extensive restoration. Here, the fabric walls and ceiling have been restored. The tongue-and-groove oak flooring that had been applied over the original pine flooring was removed and the original pine floor has been restored. Two corner closets were reconstructed, based primarily on information from the diary and physical evidence uncovered during demolition. Extensive deterioration in the framing members of the southeast perimeter wall was also uncovered during demolition (see Figure 87). All deteriorated framing members were replaced before the new fabric walls were installed.

325. NPS-NCR Contract No CX-3000-8-0047 with Willis Creasey, A.A. Restoration/Roofing, Inc. Clara Barton National Historic Site restoration files.

326. NPS-NCR Contract No CX-3000-?-???? with Bassam Hussami, Constech, Inc. Clara Barton National Historic Site restoration files.

327. Historic photographs clearly show the original four-over-two sash in these openings. For the safe to have been fireproof, there could have been no penetrations (other than the heavy metal doors) through the brick walls. The windows would have been "blind" with curtains hung behind the windows to hide

the brick wall of the safe. A small remnant of these lace curtains still remains inside the wall at the second floor window.

Physical evidence also supports this conclusion. There is no evidence in the brick walls of the vault of window openings other than those for the two existing windows. The existing openings in the brick show a ragged edge at the side where the bricks were broken for removal. In addition, the openings have no lintels which would not be the case if the openings were part of the original vault construction.

328. Board partitions are easily identified by their thickness. Whereas a stud wall will approach 5" in thickness, a board partition is only the thickness of a single board, approximately one inch. Even when covered on both sides with fiberboard, these partitions are only about 2" thick.



Figure 3: View looking east at the back elevation of the house showing the area that was backfilled behind the retaining wall to create a relatively level area behind the house.



Figure 4: The spaces between the original stone foundation piers were infilled when the basement was created. Here, rubble stone infill was used for the part of the wall that is below grade.



Figure 5: *The spaces between the original stone foundation piers were infilled when the basement was created. Here, brick infill was used for the part of the wall that is below grade.*



Figure 6: View of the inside face of one of the stone corner piers showing how the rough stone edge was "smoothed over" with cement plaster.



Figure 7: Close-up view of one of the stone corner piers showing remnanis of paint. Since the piers were covered with ivy for most of the 20th century, this is very likely the paint applied after the June 25, 1897 decision to "...have the stone piers...colored like the rest of the house."



Figure 8: Historic view of the Clara Barton House from the north, c.1898, showing the original free-standing carriage house in the lower right corner of the photo. Note the corner towers, the seven bay fenestration pattern, the single story front porch and the steep gable of the new false front. (Compare to the shallow gable on the Johnstown Hotel (Figure 2). Note the uniform color of the stone piers, indicating that they have been painted. Also note the dark color of the trim in relation to the color of the main body of the house.



Figure 9: Interior view of the Johnstown Hotel showing the long dining hall and the second floor balconies. If the Clara Barton house was originally constructed in the same manner, the light well at the front and the rear of the center Hall (room 102) would have to have been closed-in.

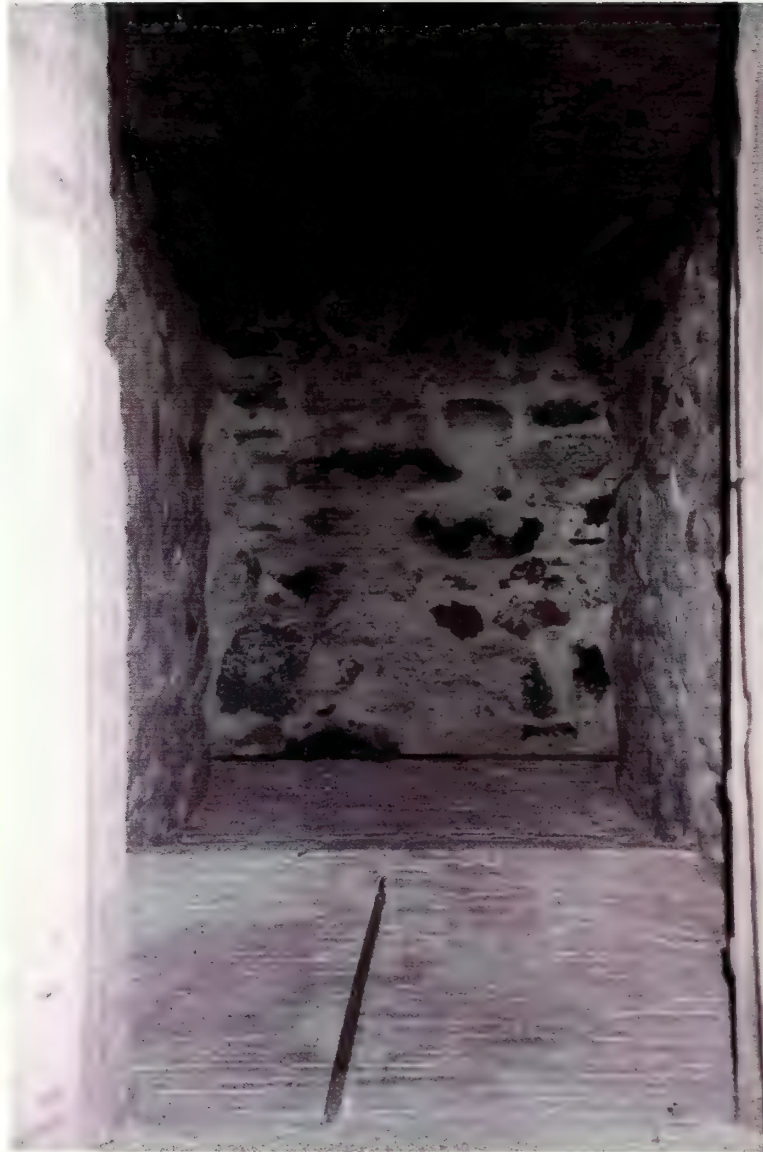


Figure 10: Interior view of the vault cellar, also referred to as the fruit cellar. Note the shallow brick vaults and the iron tie rod.



***Figure 11:** View of the doorway into the vault cellar. The stone foundation of the vault probably did not originally have a door. The way that the brick infill angles back towards the top of the opening suggests that the stone was broken out to create the door opening.*



Figure 12 Further evidence that the vault cellar door is not original are the iron pipes that have been used as lintels across the door opening.



Figure 13: General view of the Clara Barton House shortly after its renovation in 1897. Note the uniform color of the stone piers, indicating that they have been painted. Also note the dark color of the trim in relation to the color of the main body of the house.



Figure 14: Close-up view of the windows in the southwest wall of Dr. Hubbell's Bedroom (room 211) showing how the right hand window has been altered to serve as a door out to the rear porch.



Figure 15: View of the new steel post and beam structure. Notice that on top of the concrete block wall the original wood beam remains in place. These beams appear to be hemlock, one of few places where this wood can be found in this building.



Figure 16: View of restoration work underway on the center Red Cross Office (room 113) showing how the second floor joists were reinforced.



Figure 17: View looking northwest from the center Red Cross Office (room 113) into the dining room (room 112) showing how foil-backed batt insulation was installed in the perimeter walls.



Figure 18: Distant view of the southwest elevation of the Clara Barton House showing how much of the site is currently planted. Also visible is a portion of the circular drive. Notice the roofline and how the three third floor rooms have pushed up sections of the roof. Also notice how the double-hung windows of the front, rear and middle rooms are twice the height of the pivot sash in the clerestory spaces between the rooms.



Figure 19: Contemporary view of the front elevation of the Clara Barton House showing the two story porch constructed by Dr. Hubbell in 1919. Virtually all of the wooden members of the original porch have been replaced over time and many of the existing porch parts, including the columns, do not exactly match the original porch components. Notice the two small casement windows that have been installed inside the surrounds of the original, blind vault windows.



Figure 20: Close-up view of the vault window on the second floor. Notice how the frame of the original full-sized window has been infilled with German siding to match the rest of the house. The small four-light casement window was installed when the building was converted to apartments.



Figure 21: Close-up view of the vault window showing the rough edge on the left where the bricks were broken out to crate the opening. Also note that there is no lintel across the top of the opening and that the brick to the extreme right is loose and ready to fall.



Figure 22: View of the large window on the northwest elevation that opens into the stairway. This window was not moved to this location until 1897. The short sections of vertical trim above the small six-light window cover joints with the infill siding. This suggests that before the large window was moved to this location, there was a first floor, six-over-six sash located here. This is supported by the fact that, with only one exception, the windows on the first and second floors are aligned, and the infill siding above the large window possibly marks the location of a second floor window



Figure 23: Typical six-over-six double-hung window opening into the basement. The opening between the window sill and the ground is typically infilled with vertical board-and-batten siding.



Figure 24: Typical six-light fixed window opening into the basement. The opening between the window sill and the ground is typically infilled with vertical board-and-batten siding.



Figure 25: Two-light windows in the vertical board doors that open into what was historically the basement summer kitchen. The stone pier to the right of the doors appears to have originally extended out perpendicularly from the wall. The face of the pier is irregular and remnants of the extension are visible at grade level. It is not known what the purpose of the extension was.



Figure 26: View of the west corner of the Clara Barton House taken after the demolition of the two story rear porch, but before the removal of the garage. The french doors that were installed at the first floor level have already been replaced with double-hung sash. Note the areas of missing siding in the places where the porch was attached to the rear elevation of the building.



Figure 27: General view of the restored and refurnished corner Red Cross Office (room 114) looking to the northeast. The wall on the left of the photo has a restored muslin finish on a stud bearing wall. The closet doors visible on the right are made from a wood frame covered with painted muslin.



Figure 28: Detail view of the northeast wall of Dr. Hubbell's bedroom (room 211) showing the original muslin fabric that was applied (over red rosin paper) on the vertical board partition.



Figure 29: General view of the restored and refurnished center Red Cross Office (room 113) looking to the south showing original beaded board on a 2 x 4 stud bearing wall.



Figure 30: View of the partially demolished plaster and wood lath ceiling in the bathroom (room 209) typical of the plaster used in the house.

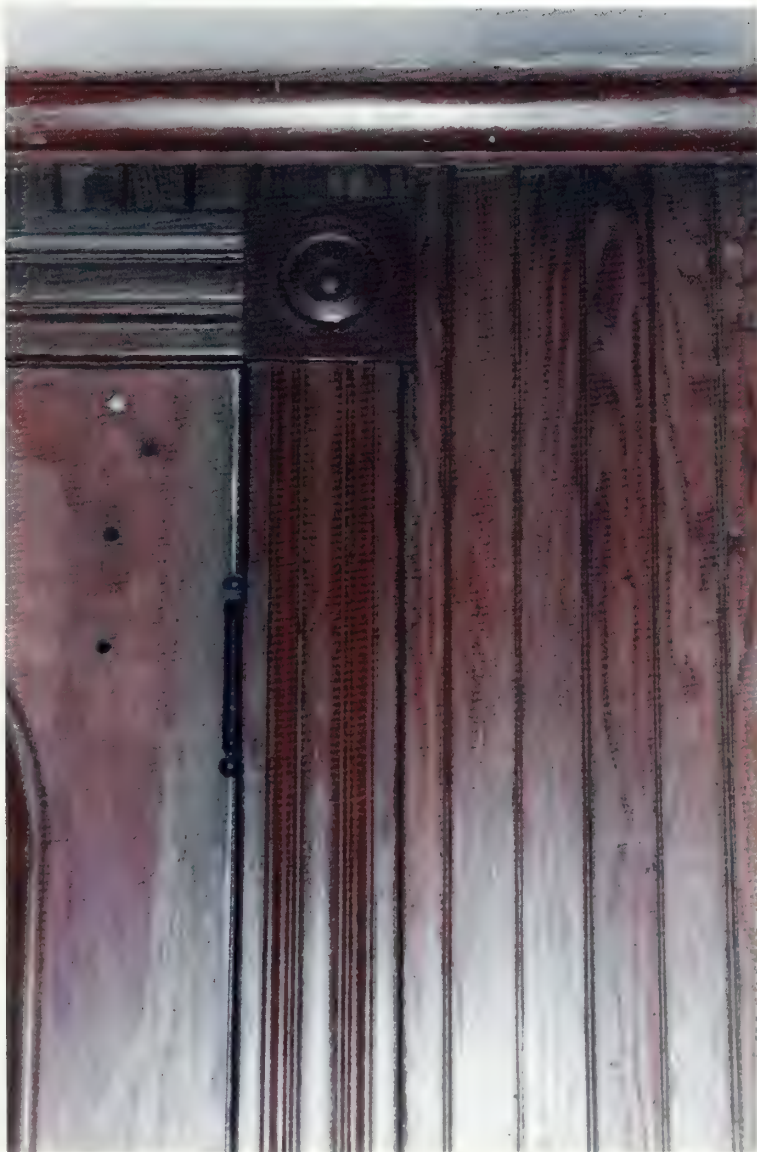


Figure 31: Close-up view of symmetrical trim (type 1) with a (type 1) bull's-eye corner block.



Figure 32: Close-up view of the lower section of "victorian" trim (type 2). Note the detailing at the top of the plinth.



Figure 33: Close-up view of the upper section of "victorian" trim (type 2). Note the rosette at the level of the transom bar and the beaded molding that runs across the top of the transom.



Figure 34: Close-up view of "colonial" trim (type 3) with (type 2) bull's-eye corner blocks.



Figure 35: *Close-up view of sanitary trim (type 4) with (type 1) bull's-eye corner blocks.*



Figure 36: Close-up view of sanitary trim (type 4) with plain corner blocks.

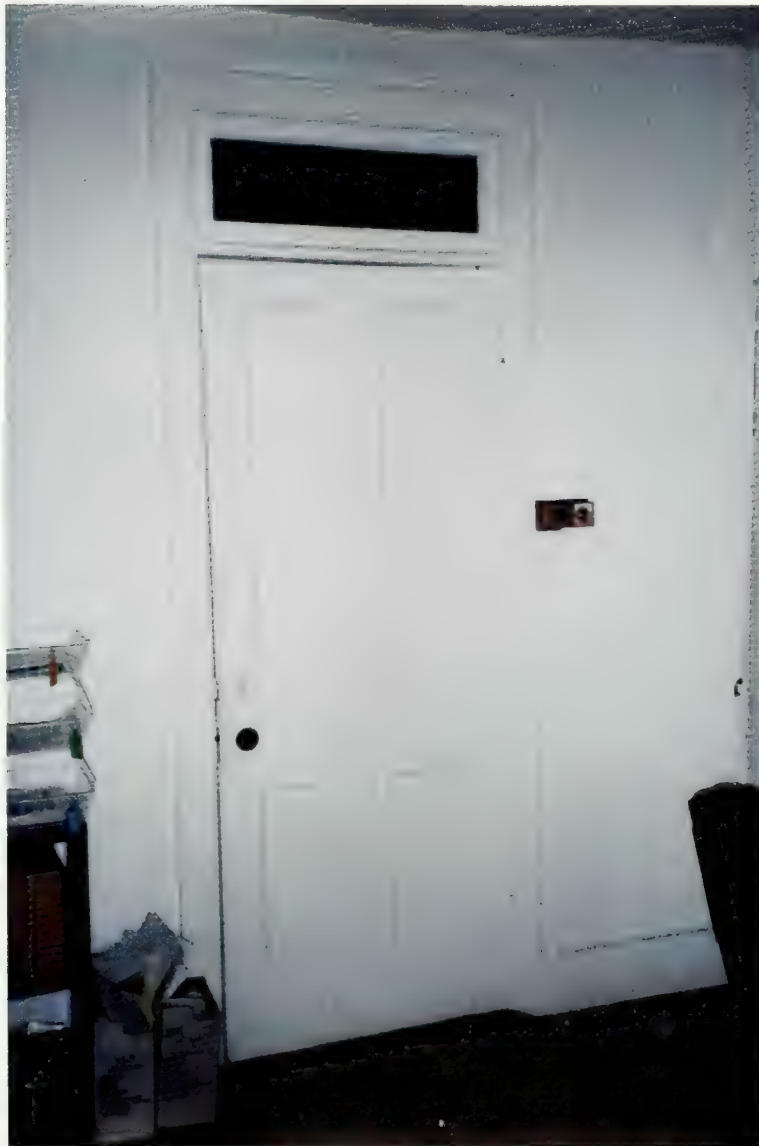
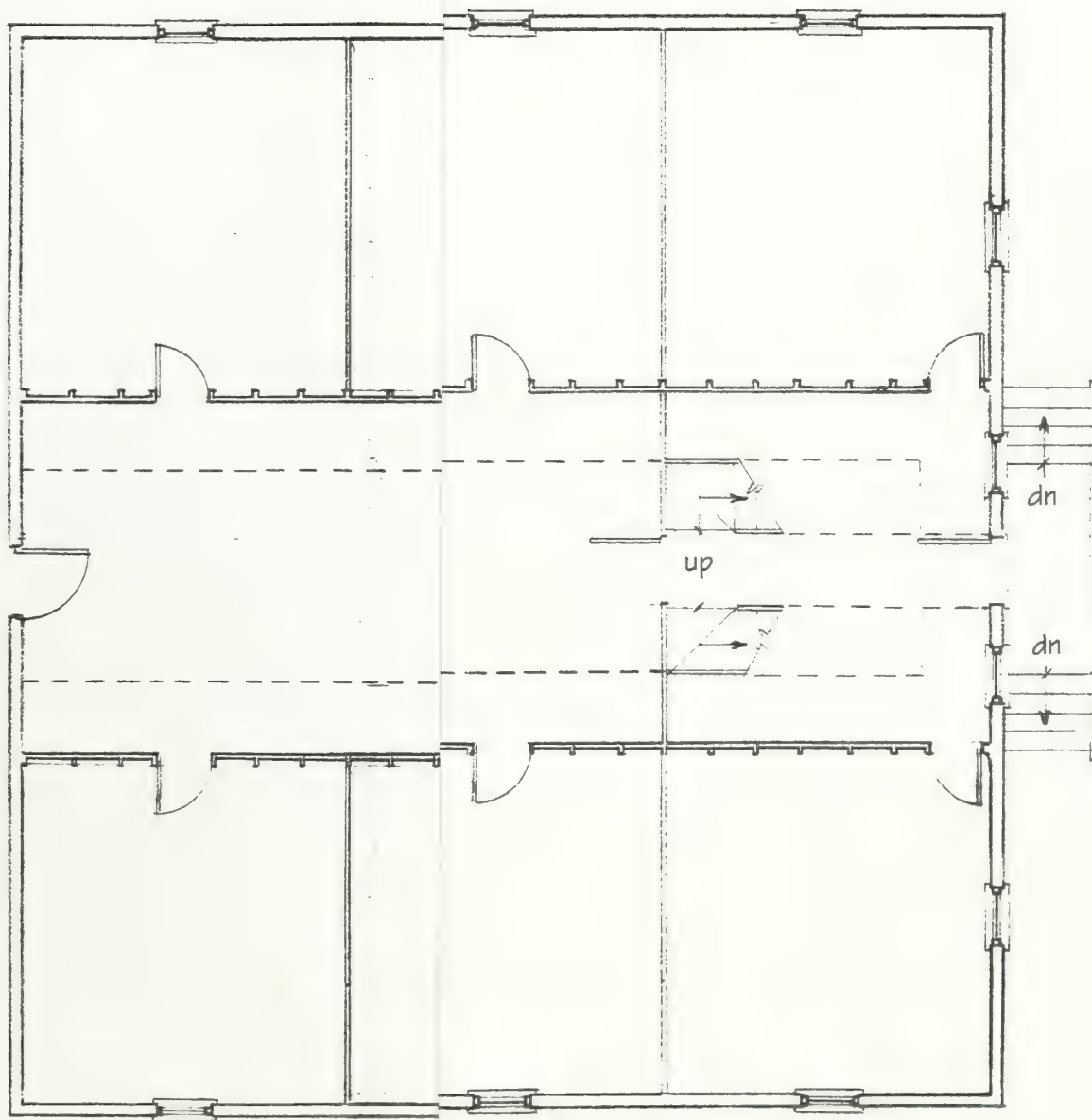


Figure 37: Close-up view of sanitary trim (type 4) with mitered corners.



Figure 38: Close-up view of "colonial" trim (type 5) with mitered corners.

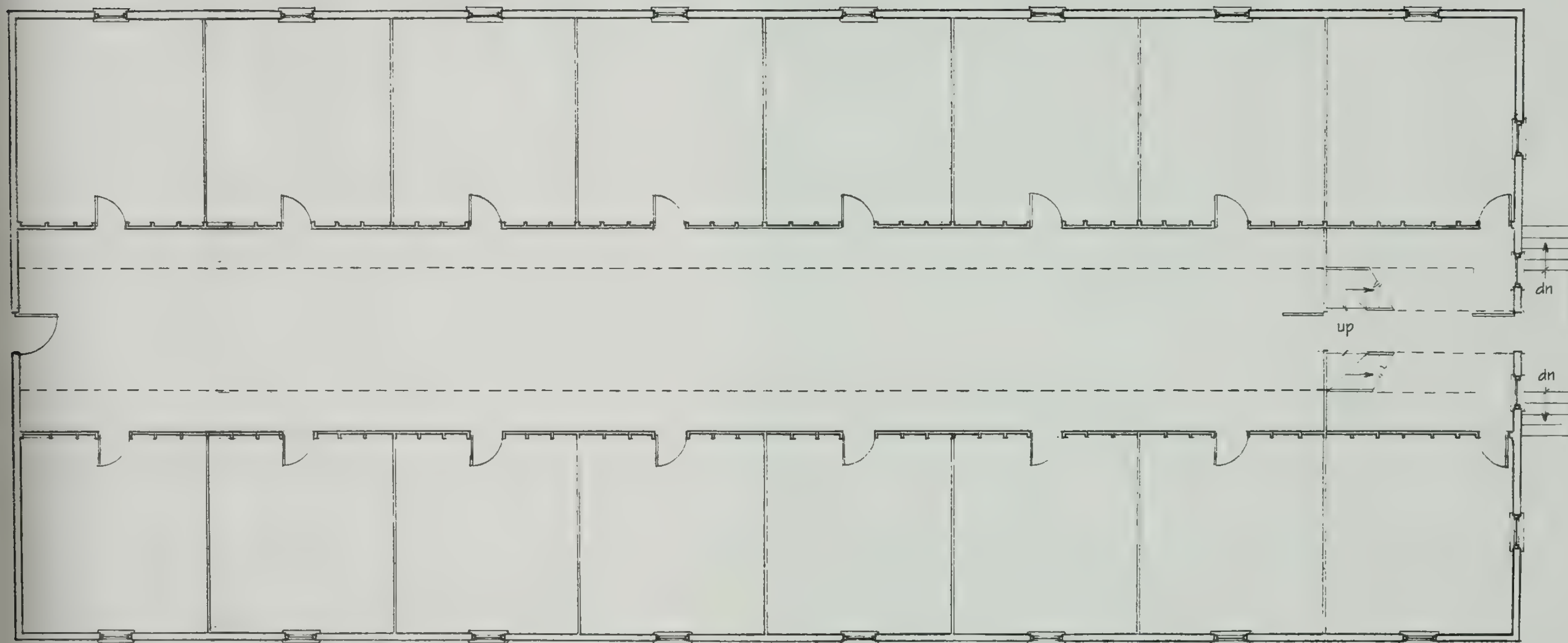


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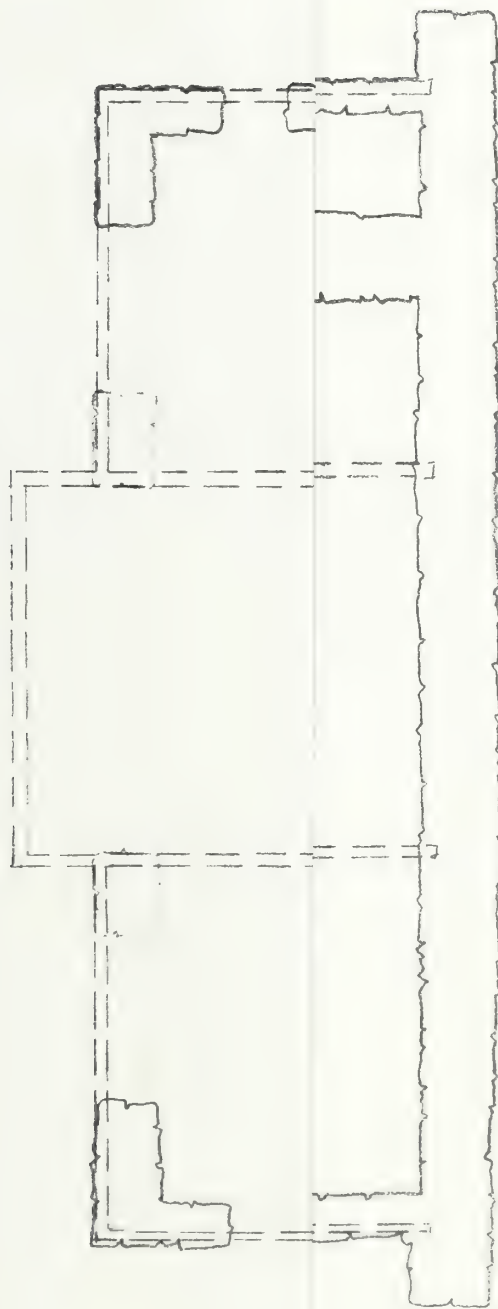
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Approximate Scale in Feet



Drawing 1
 Johnstown Hotel
 Conjectural First Floor Plan

Approximate Scale: $\frac{1}{8}" = 1'-0"$
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 Approximate Scale in Feet



Drawing 2

Clara Barton House-1891

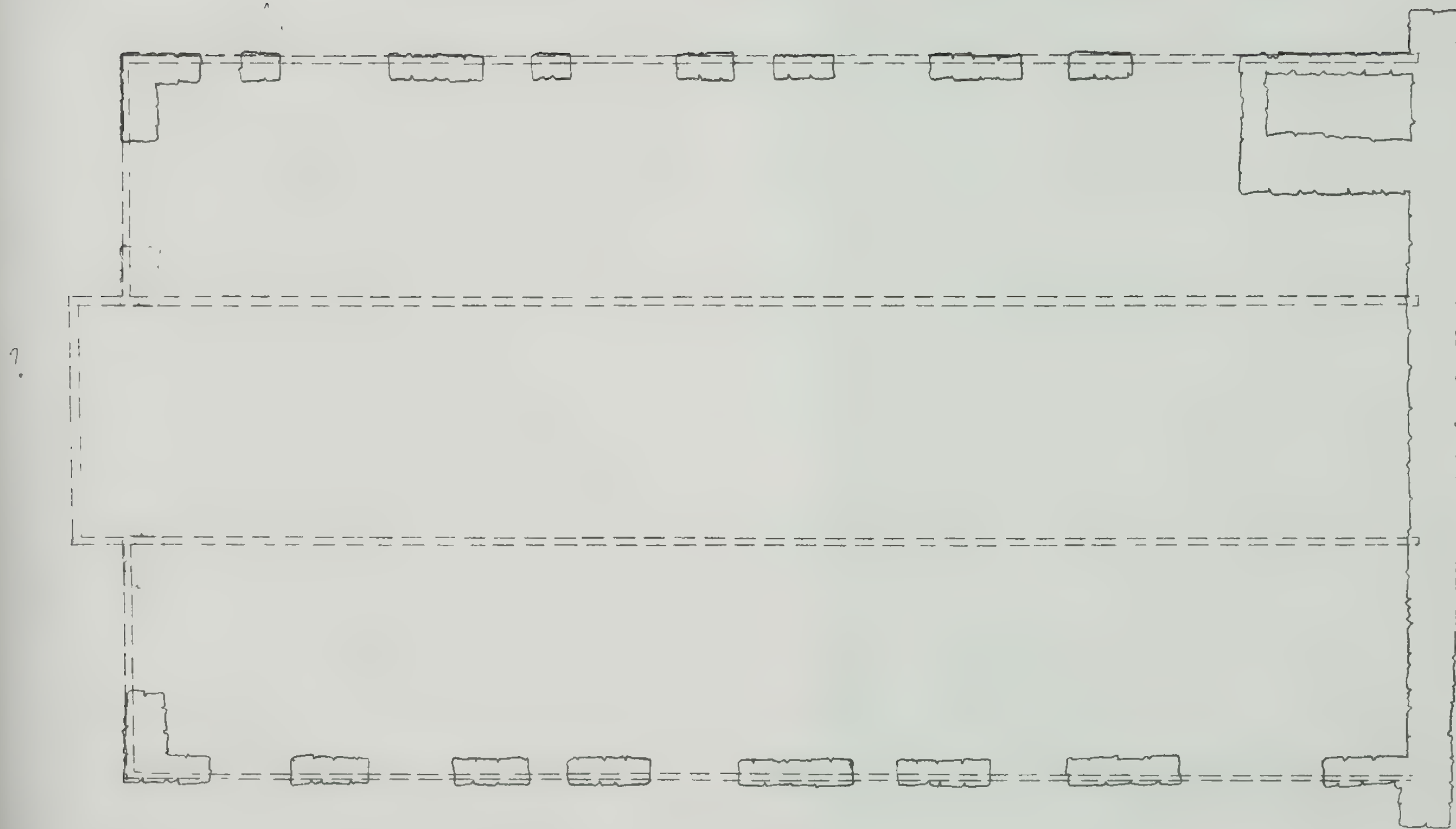
Conjectural Foundation Plan

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Approximate Scale in Feet





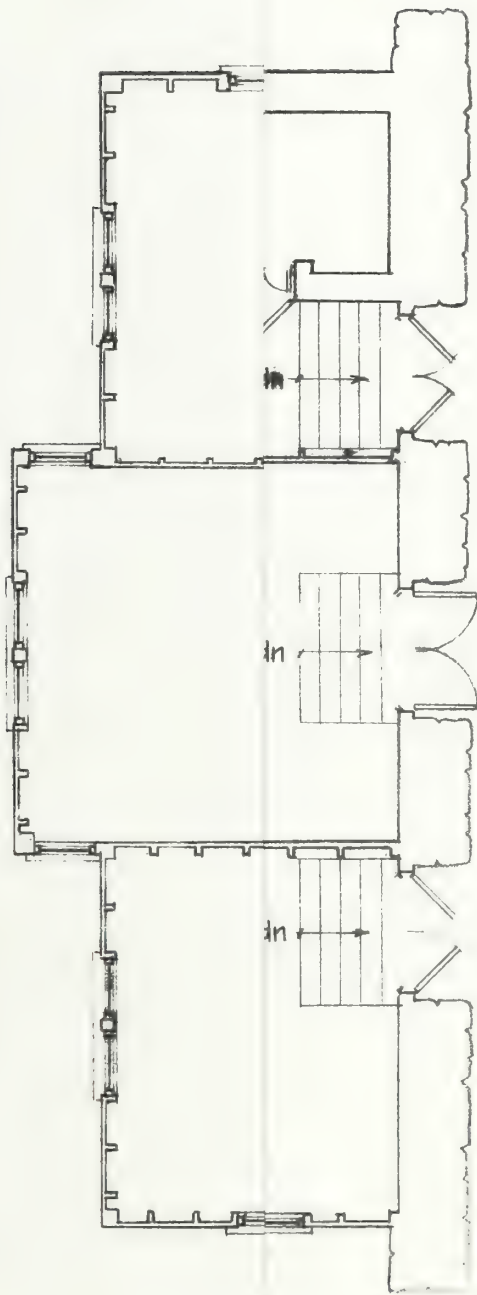
Drawing 2
Clara Barton House-1891
Conjectural Foundation Plan

Approximate Scale: 1/8" = 1'-0"



Approximate Scale in Feet



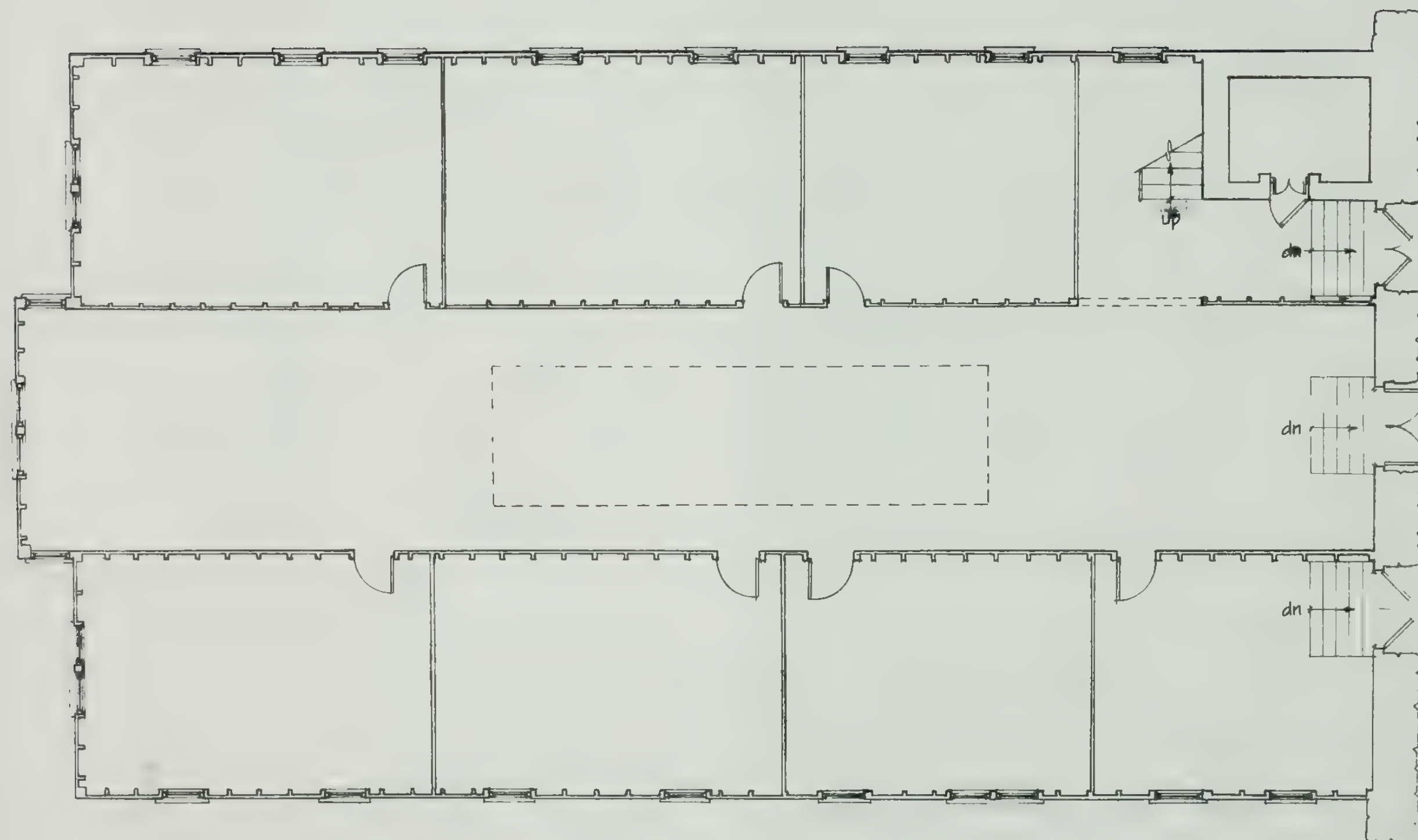


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 Clara Barton House-1891
 Conjectural First Floor Plan

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 Approximate Scale in Feet



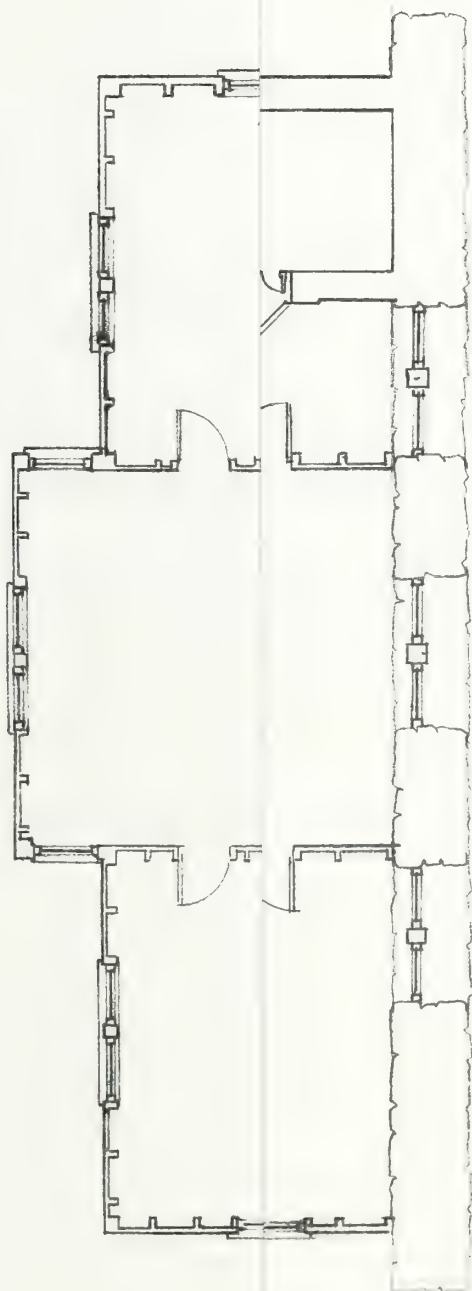


Drawing 3
Clara Barton House-1891
Conjectural First Floor Plan

Approximate Scale: $\frac{1}{8}$ " = 1'-0"

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Approximate Scale in Feet





Drawing 4

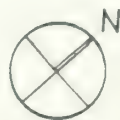
Clara Barton House-1891

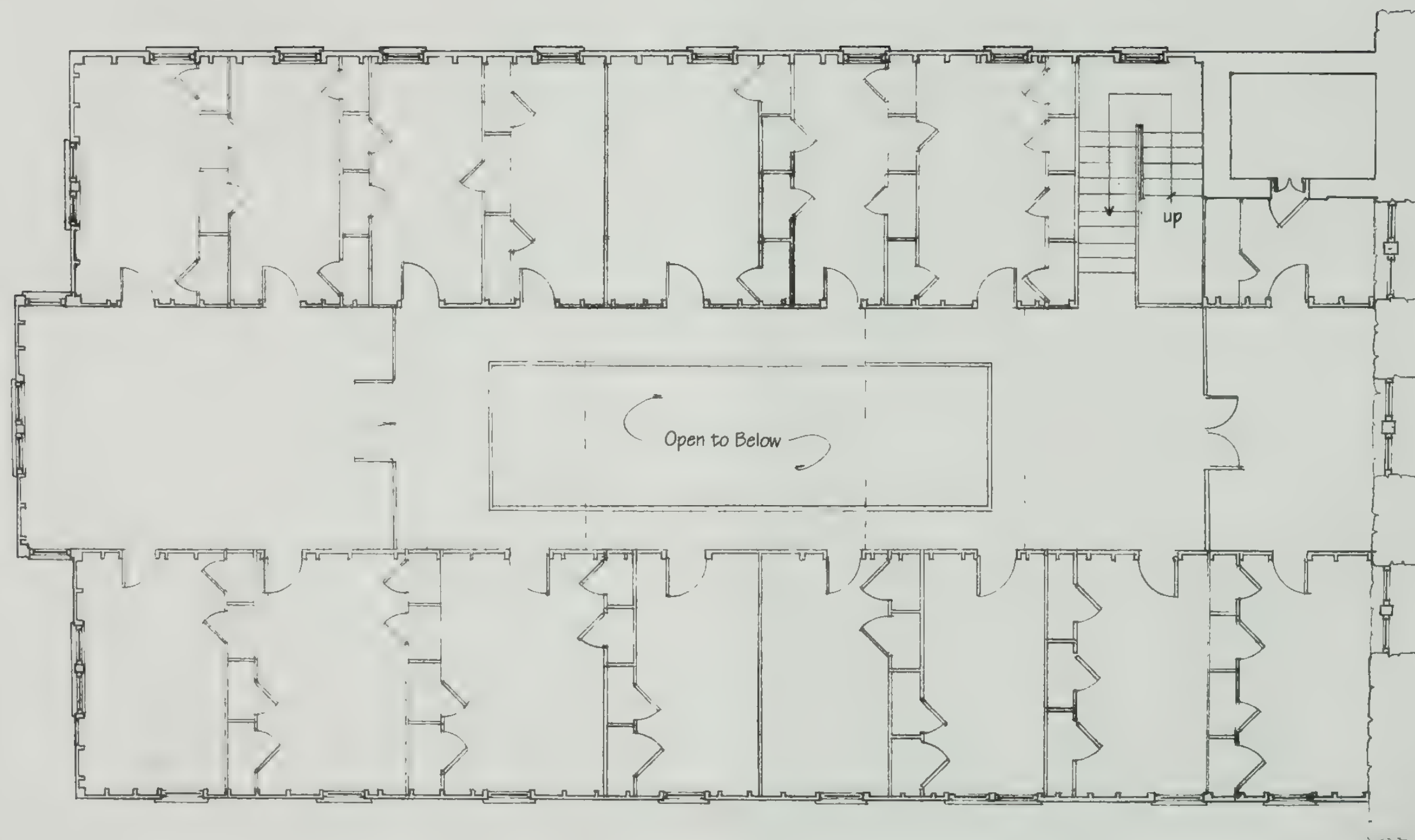
Conjectural Second Floor Plan

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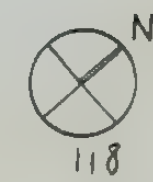
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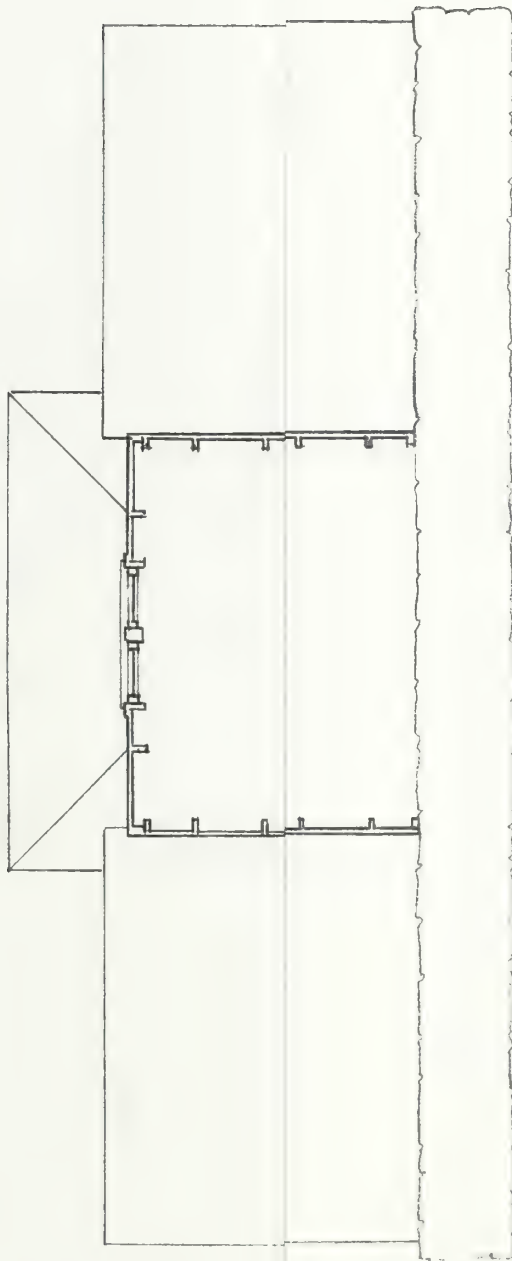




Drawing 4
Clara Barton House-1891
Conjectural Second Floor Plan

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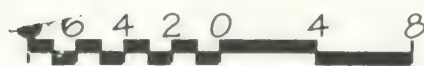


Drawing 5

Clara Barton House-1891

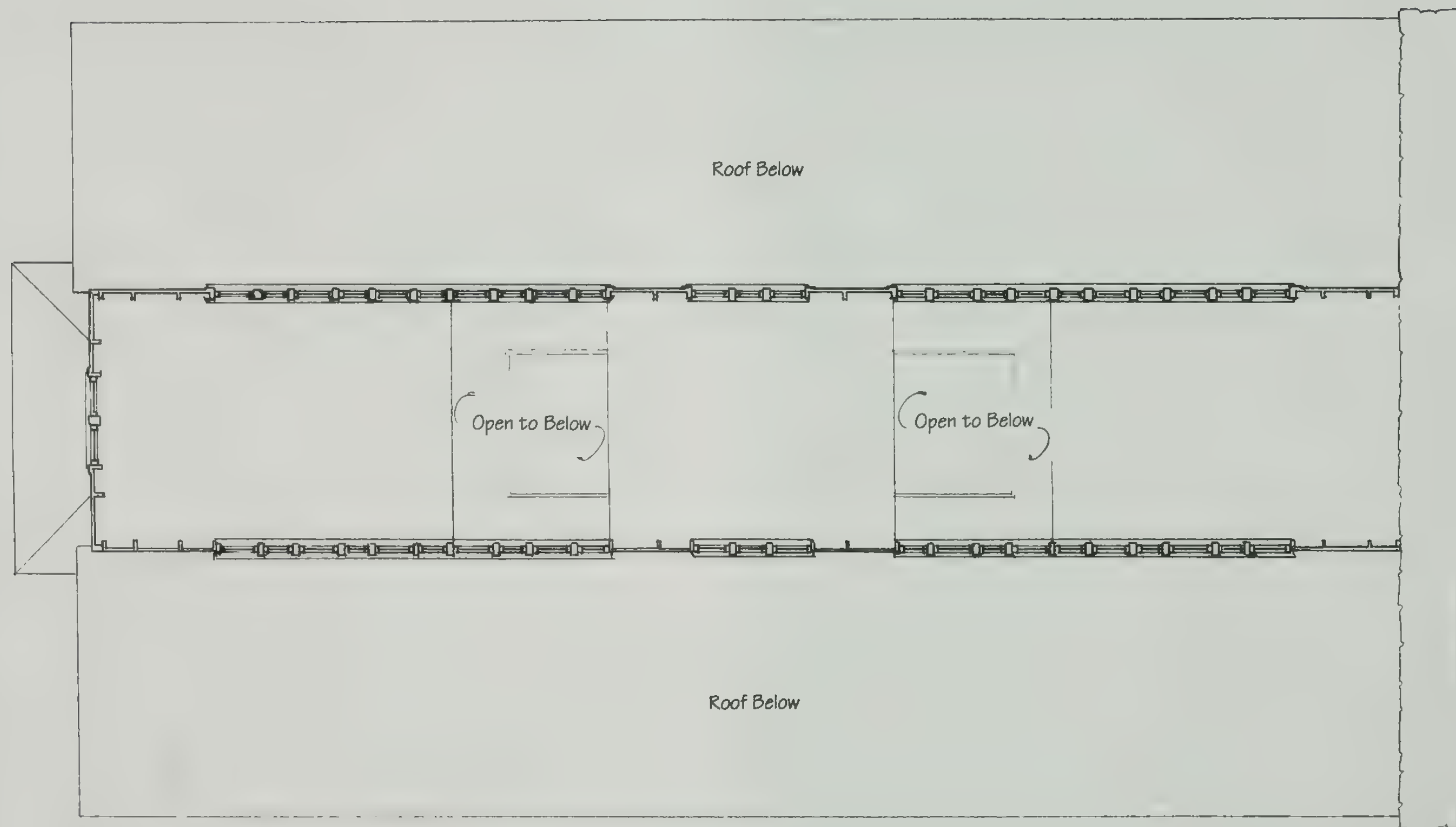
Conjectural Third Floor Plan

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Approximate Scale in Feet



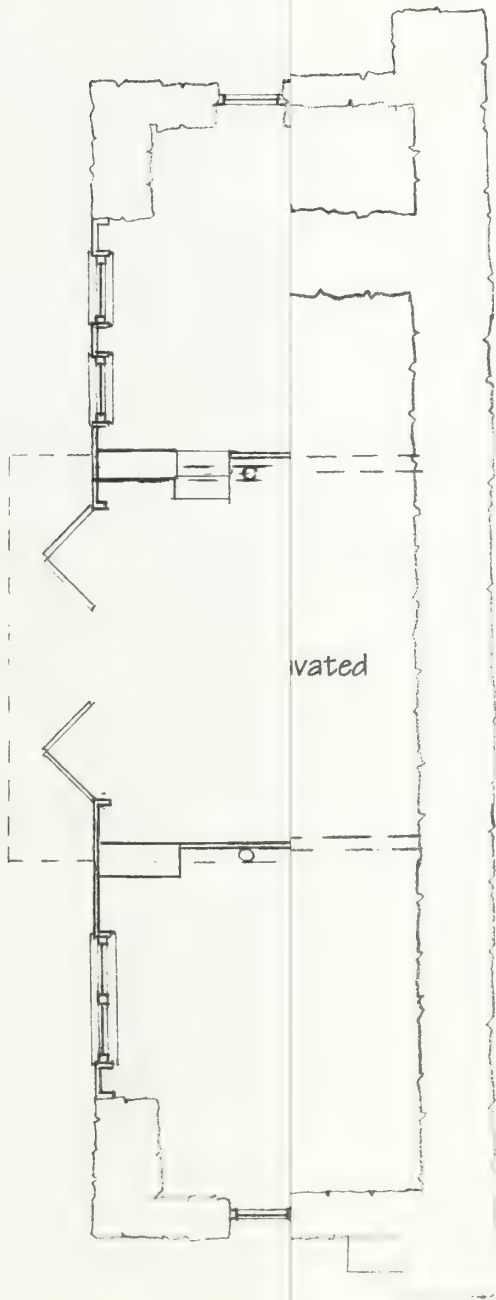


Drawing 5
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Approximate Scale in Feet



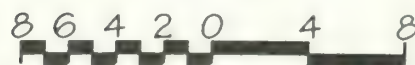


Drawing 6

Clara Barton House-1897

Conjectural Basement Plan

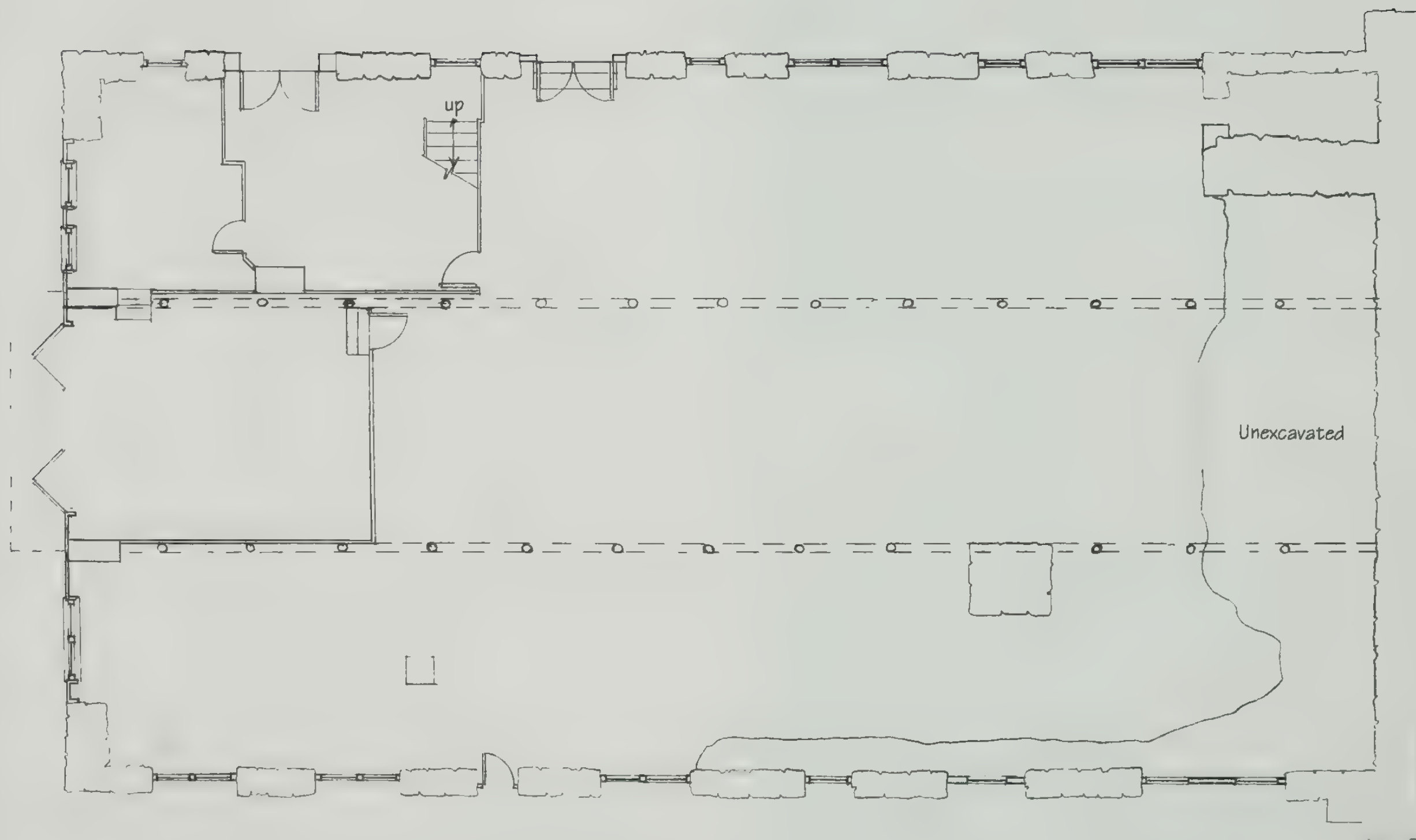
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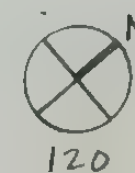
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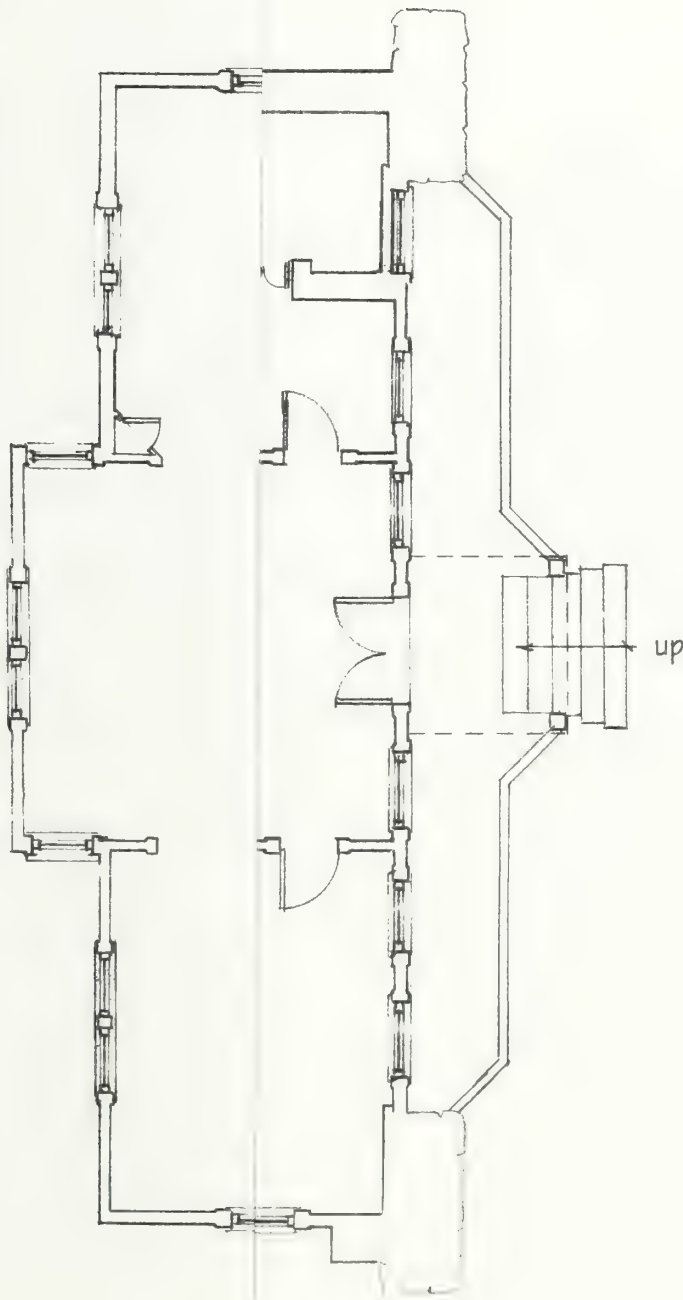


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 Conjectural Basement Plan

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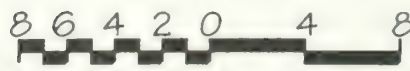


Drawing 7

Clara Barton House-1897

Conjectural First Floor Plan

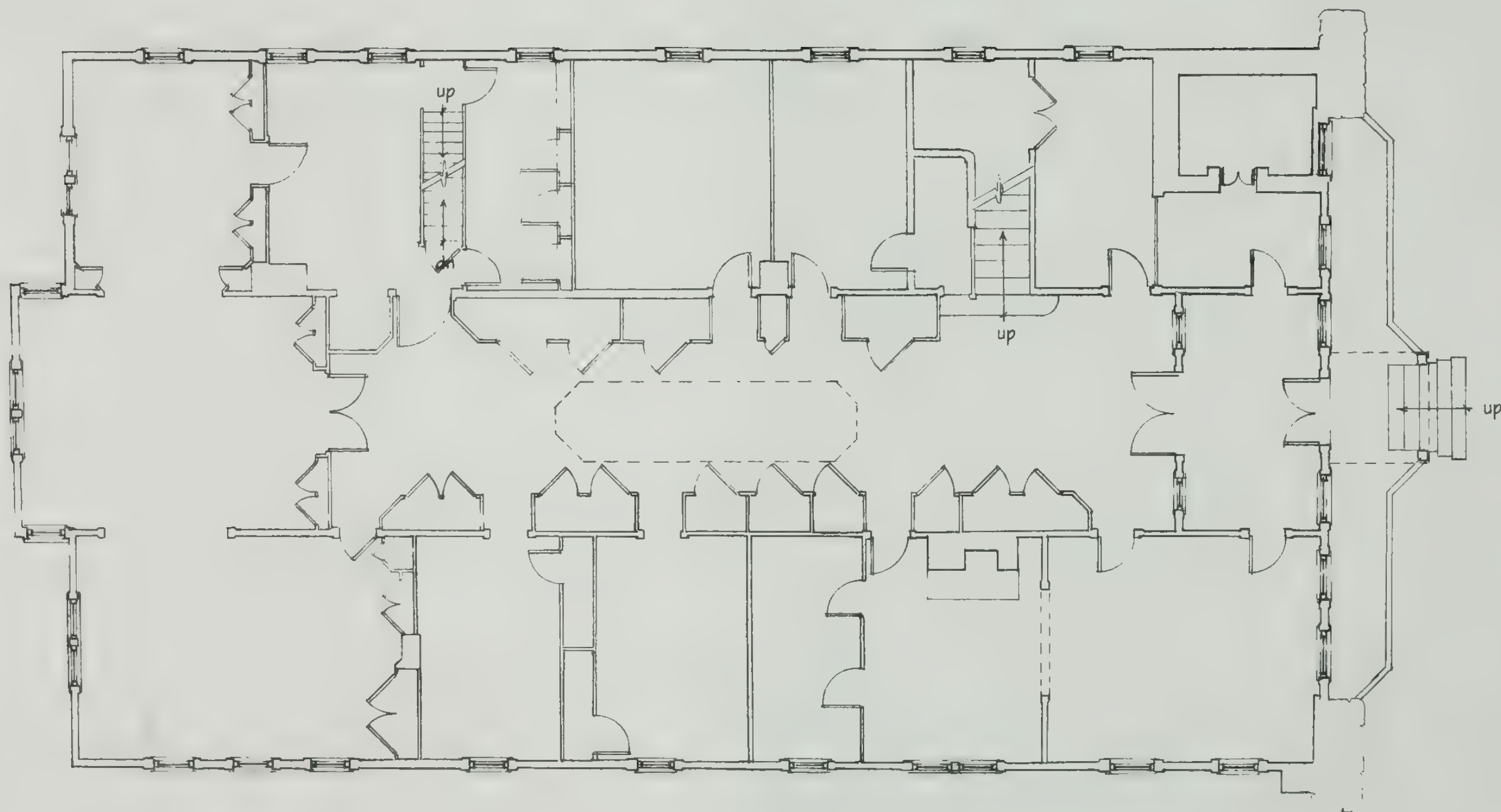
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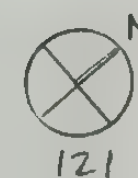
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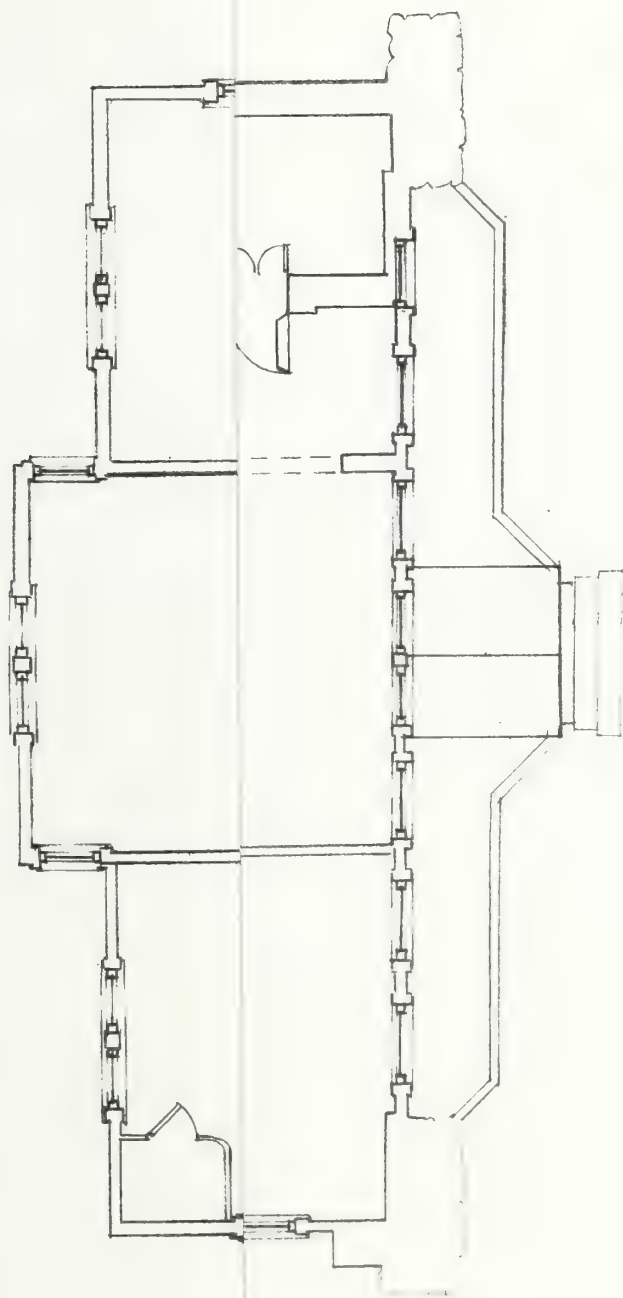


Drawing 7
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 Conjectural First Floor Plan

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 Approximate Scale in Feet





Drawing 8

Clara Barton House-1897

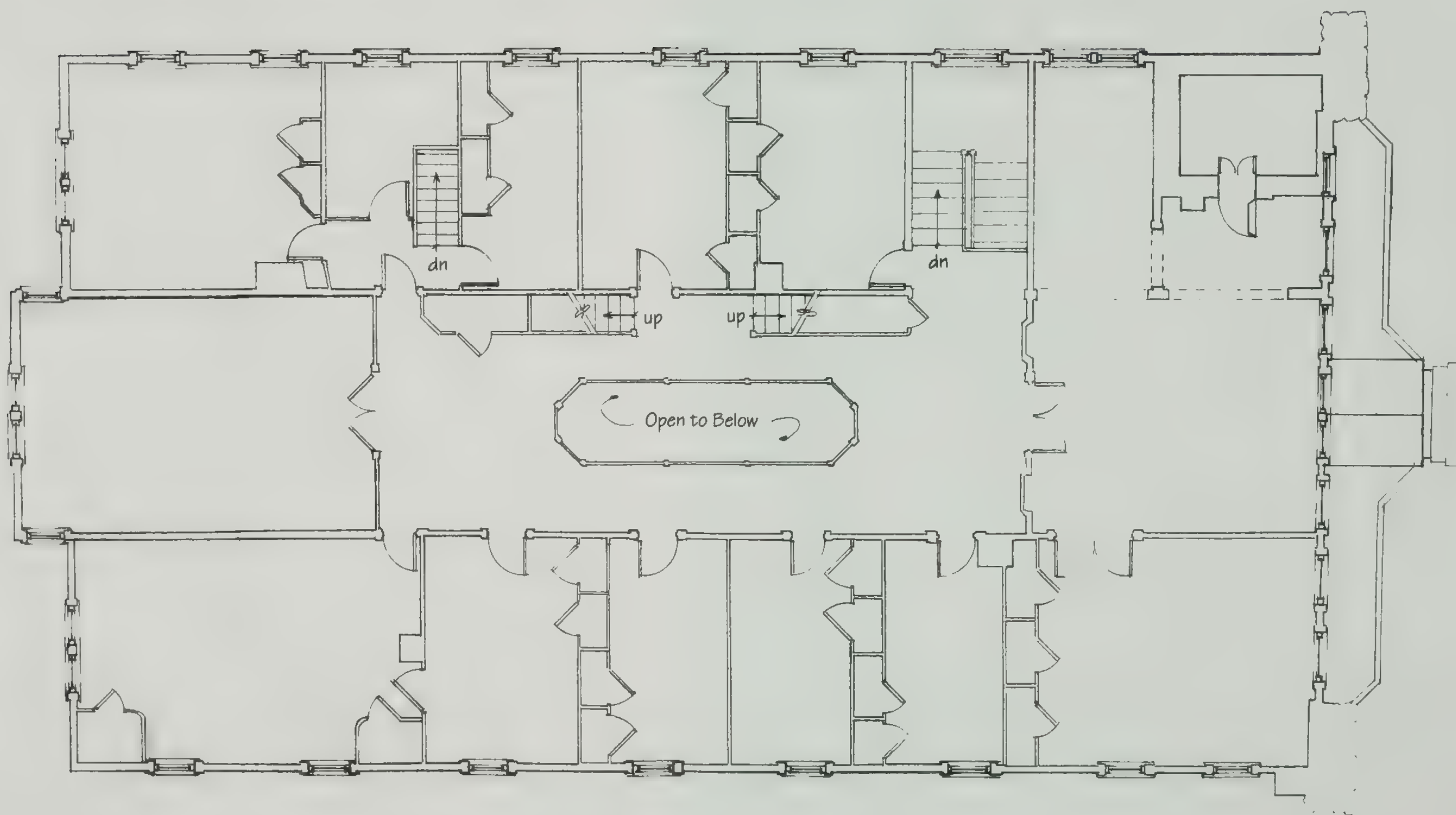
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Approximate Scale in Feet



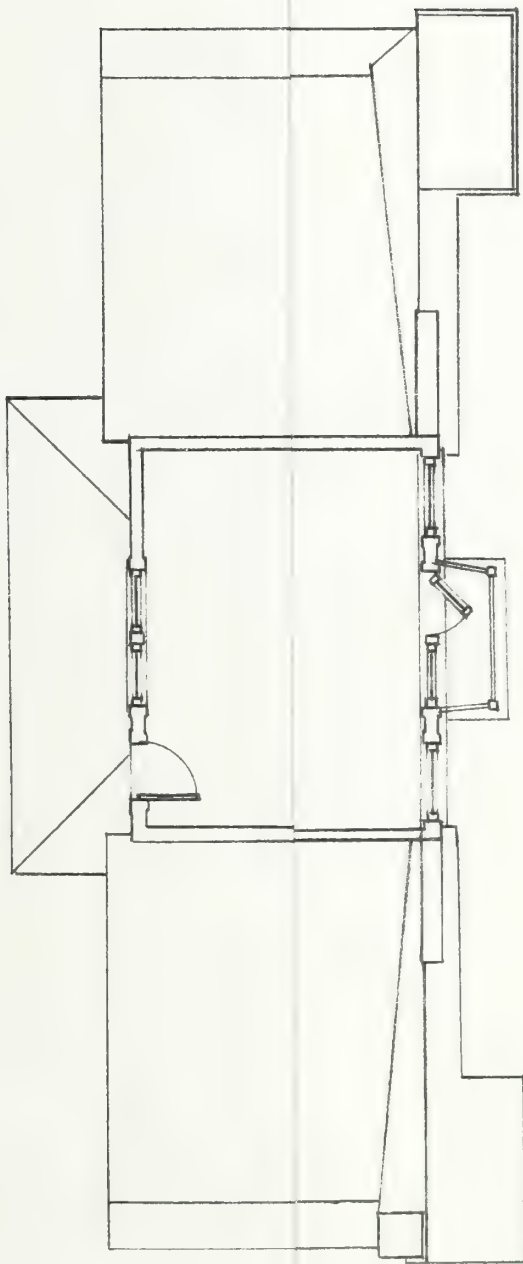


Drawing 8
Clara Barton House-1897
Conjectural Second Floor Plan

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Approximate Scale in Feet



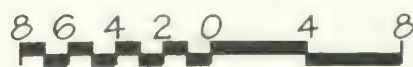


Drawing 9

Clara Barton House-1897

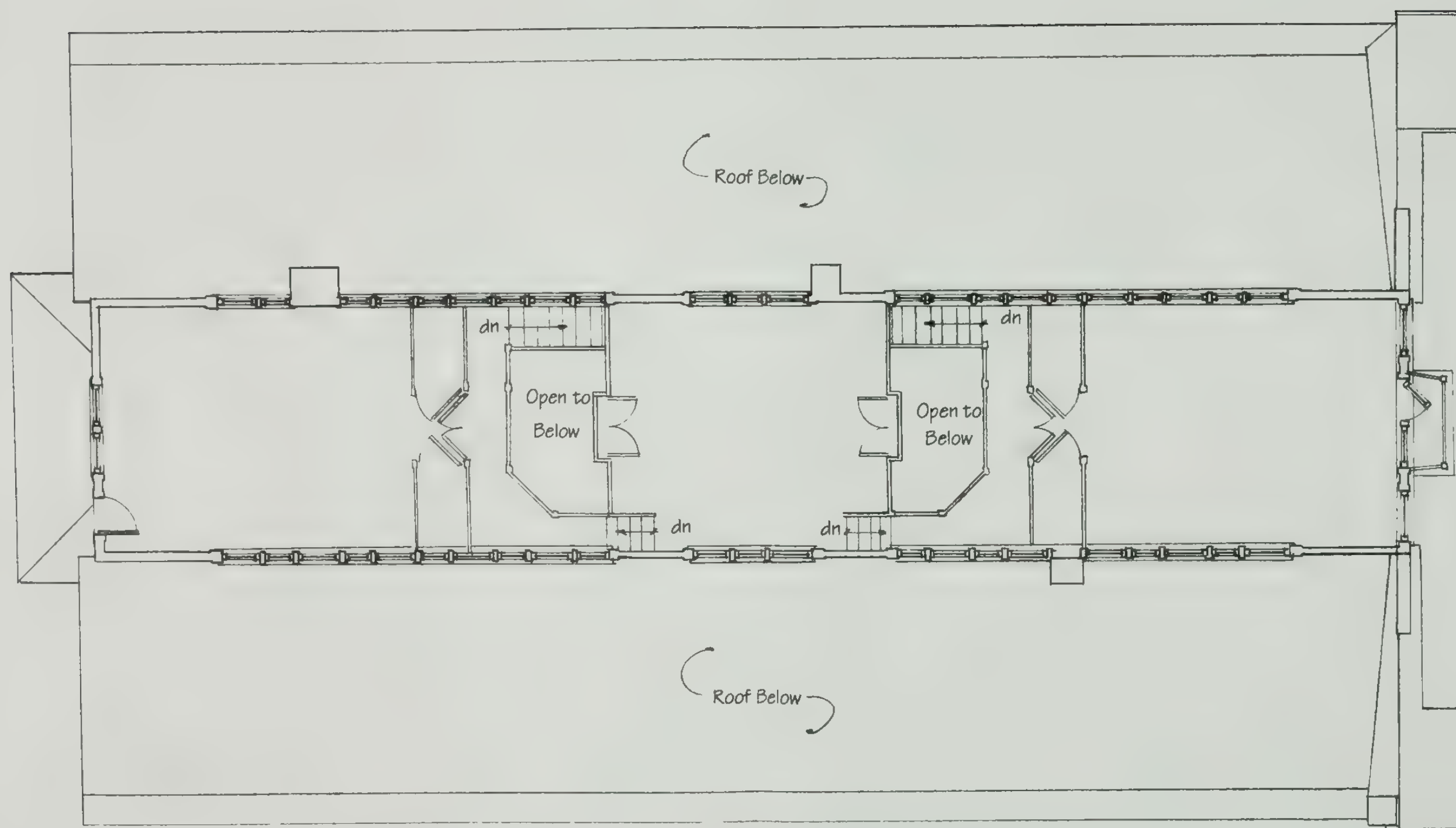
Conjectural Third Floor Plan

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Approximate Scale in Feet

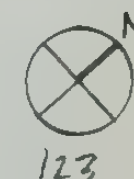


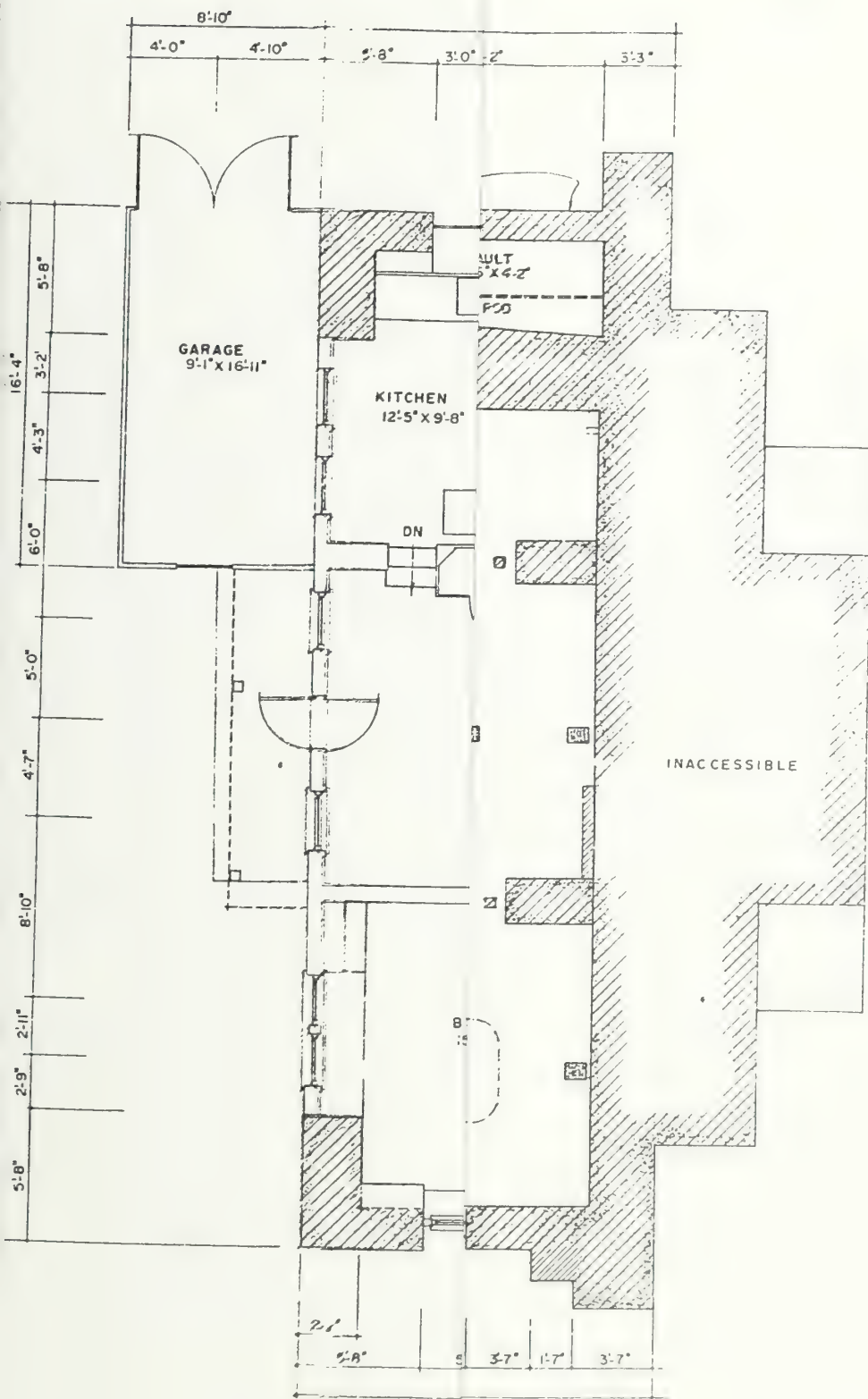


Drawing 9
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 Conjectural Third Floor Plan

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 Approximate Scale in Feet



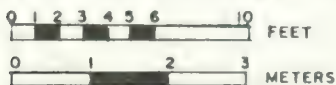


WISHES
WOOD THROUGH CUT APARTMENT
AND UTILITY ROOM. BASEMENT
FLOOR IS EARTH EXCEPT FOR
CONCRETE PAD AND VAULT WHICH
IS MASONRY.

Drawing 10

Clara Barton House Basement Plan-1977

Approximate Scale: 1/8" = 1'-0"



DAVID D. BALLARD JAN 1976

MICHAEL J. SNYDER

1976

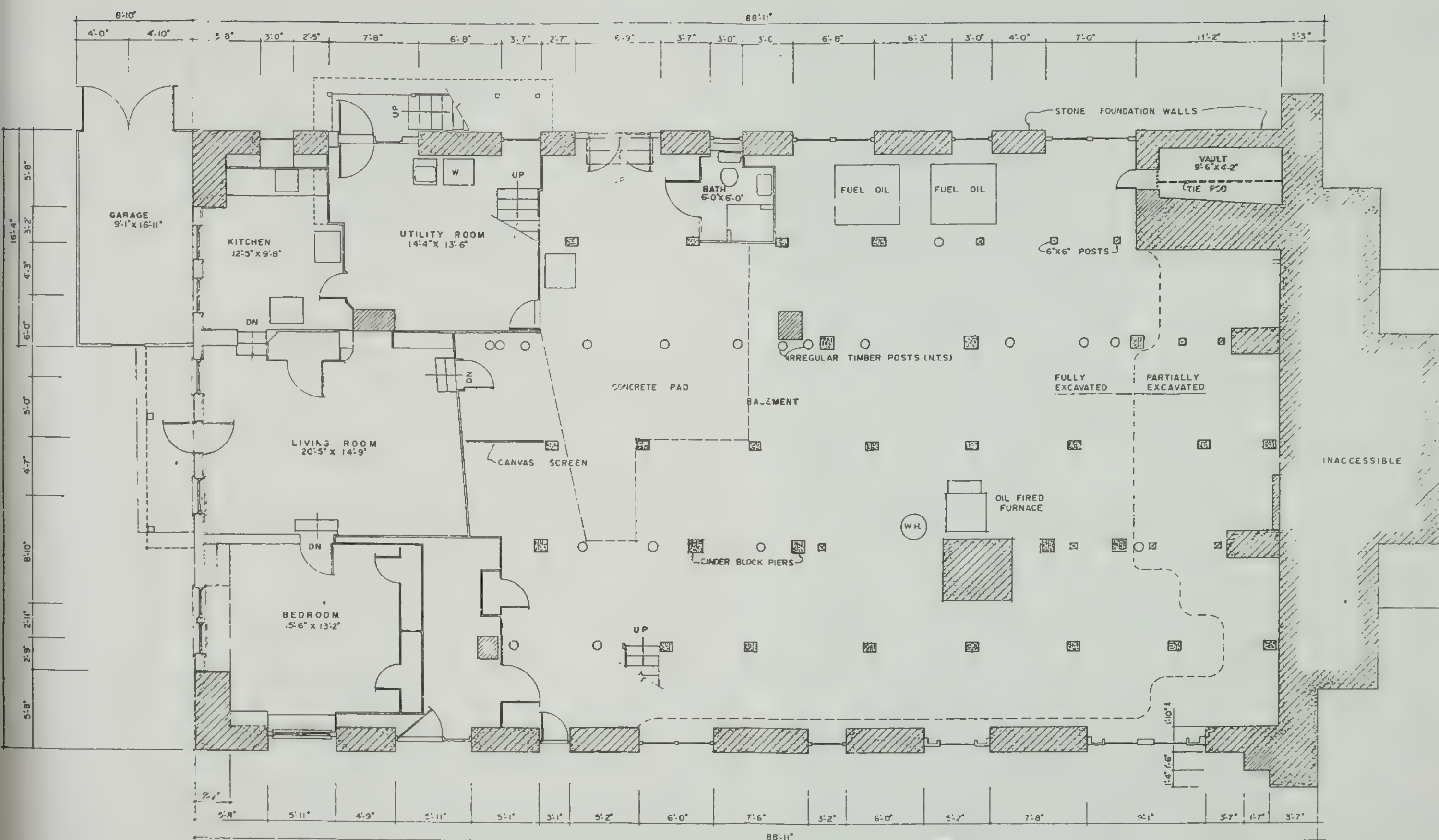
CLARA BARTON HOUSE
5801 OXFORD ROAD
GLEN ECHO, MONTGOMERY COUNTY, MARYLAND

NAMES AND LOCATIONS OF STRUCTURAL

CLARA BARTON HOUSE
MONTGOMERY COUNTY, MARYLAND

SURVEY NO.
MD
300

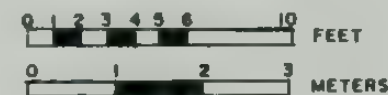
HISTORIC AMERICAN
BUILDINGS SURVEY
SHEET 2 OF 9



FINISHES
WOOD THROUGH CUT APARTMENT
AND UTILITY ROOM. BASEMENT
FLOOR IS EARTH EXCEPT FOR
CONCRETE PAD AND VAULT WHICH
IS MASONRY.

Drawing 10
Clara Barton House
Basement Plan-1977

Approximate Scale: 1/8" = 1'-0"



DEVERLY J. SANCHEZ MICHAEL U. SNYDER DAVID D. BALLARD JAN 1976

NATIONAL CAPITAL PARKS 1976
SANCHEZ SNYDER BALLARD
ON THE OCCASION OF THE 100TH ANNIVERSARY OF THE
UNIVERSITY OF THE DISTRICT OF COLUMBIA

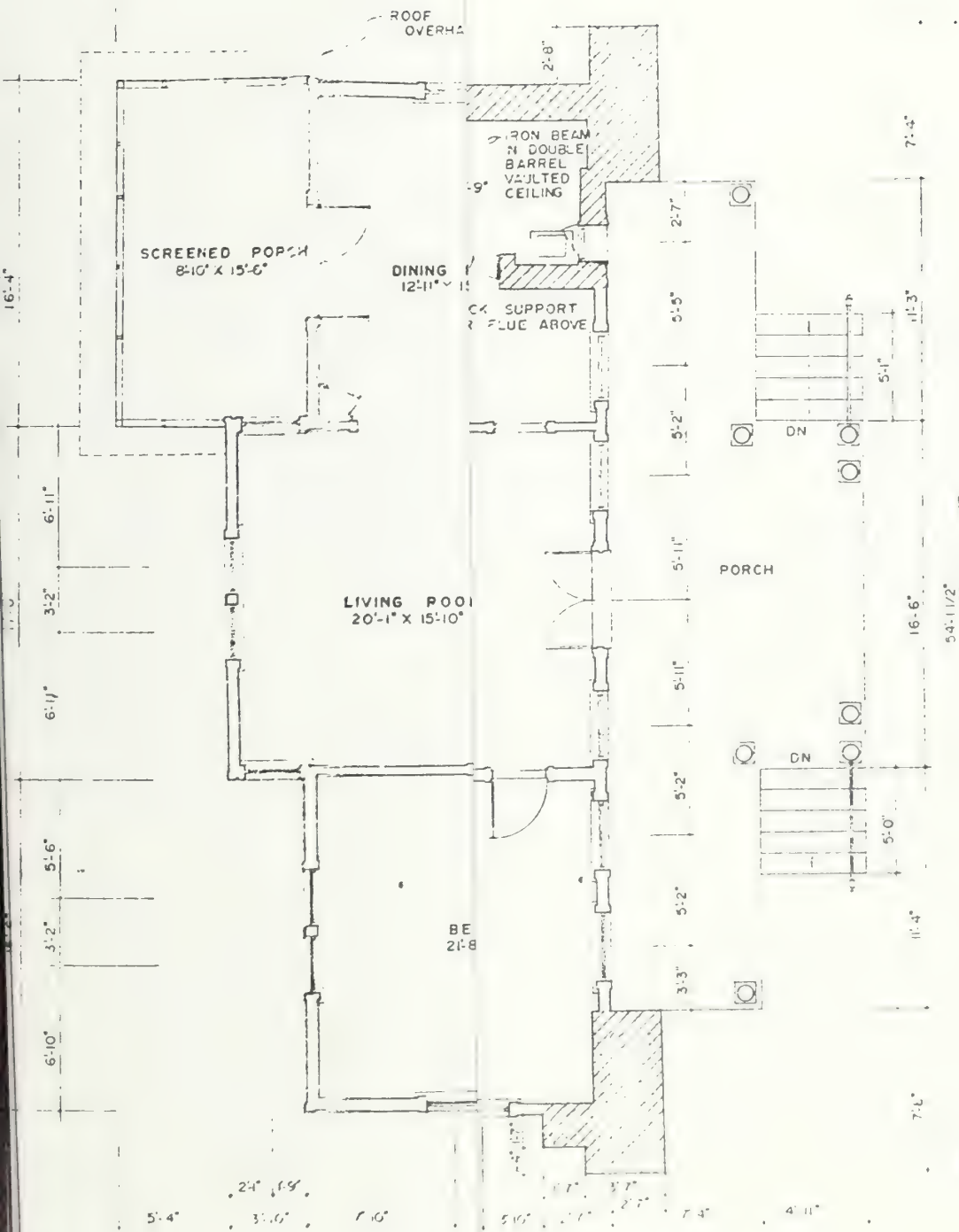
NAME AND ADDRESS OF THE STRUCTURE

CLARA BARTON HOUSE

GLEN ECHO MONTGOMERY COUNTY MARYLAND

3001 OXFORD ROAD

HISTORIC AMERICAN
BUILDINGS SURVEY
NO. 300
SHEET 2 OF 9



Drawing 11 Clara Barton House First Floor Plan-1977

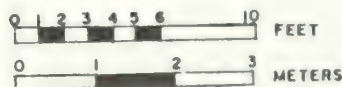
Approximate Scale: 1/8" = 1'-0"

NOTE
 ALL HALL CLOSETS ORIGINALLY
 OPENED INTO HALL AS INDICATED
 IN DASHED LINES. DOORS ARE
 STILL INTACT BUT NOT OPERABLE
 MAJOR CHANGES IN PLAN OCCURRED
 BETWEEN 1929 AND 1942 WHEN
 HOUSE WAS DIVIDED INTO APARTMENTS

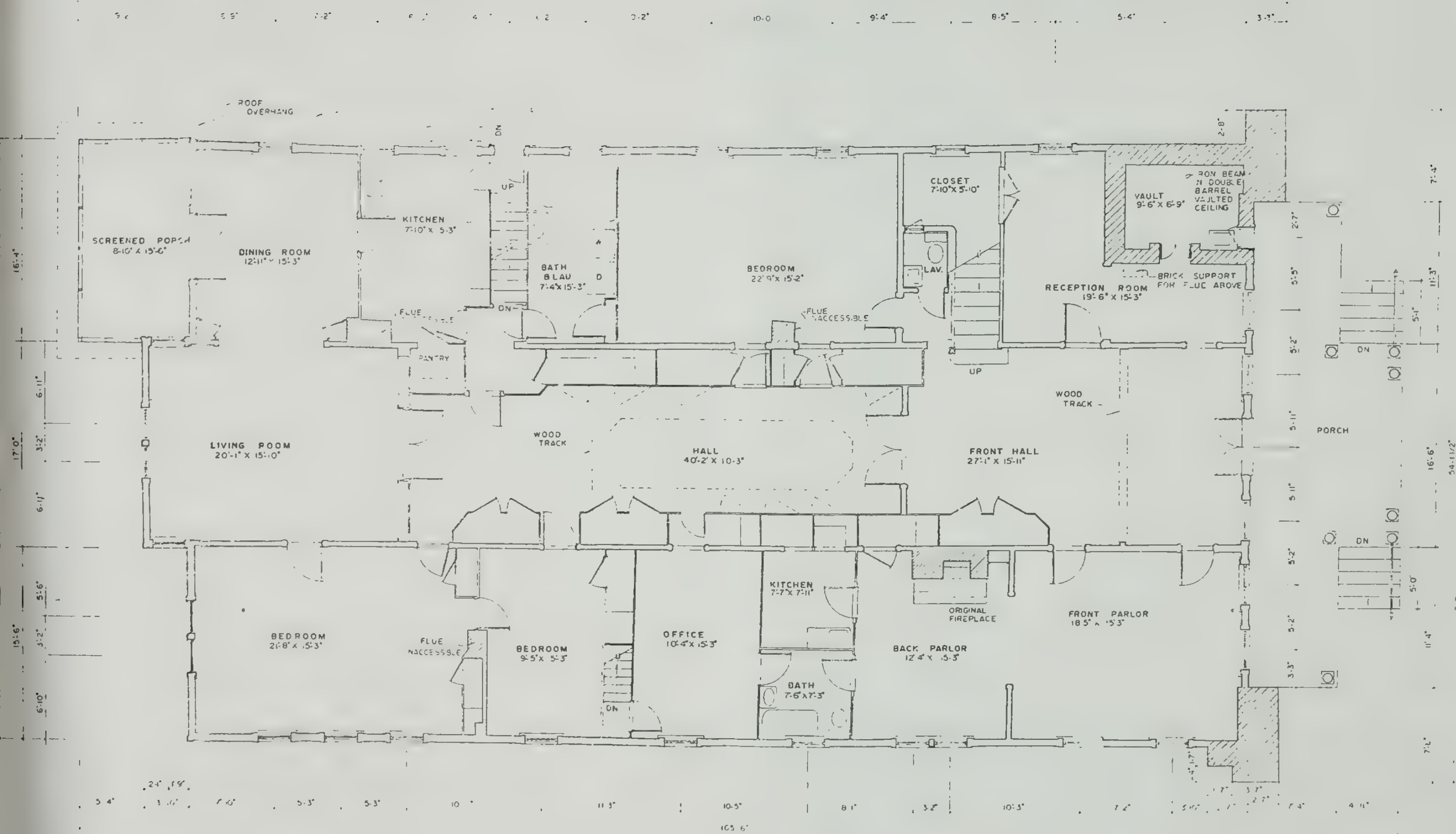
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CLARA BARTON HOUSE
 3801 OXFORD ROAD GLEN ECHO MONTGOMERY COUNTY MARYLAND



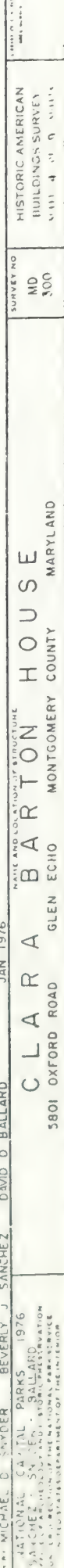
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Clara Barton House
First Floor Plan-1977

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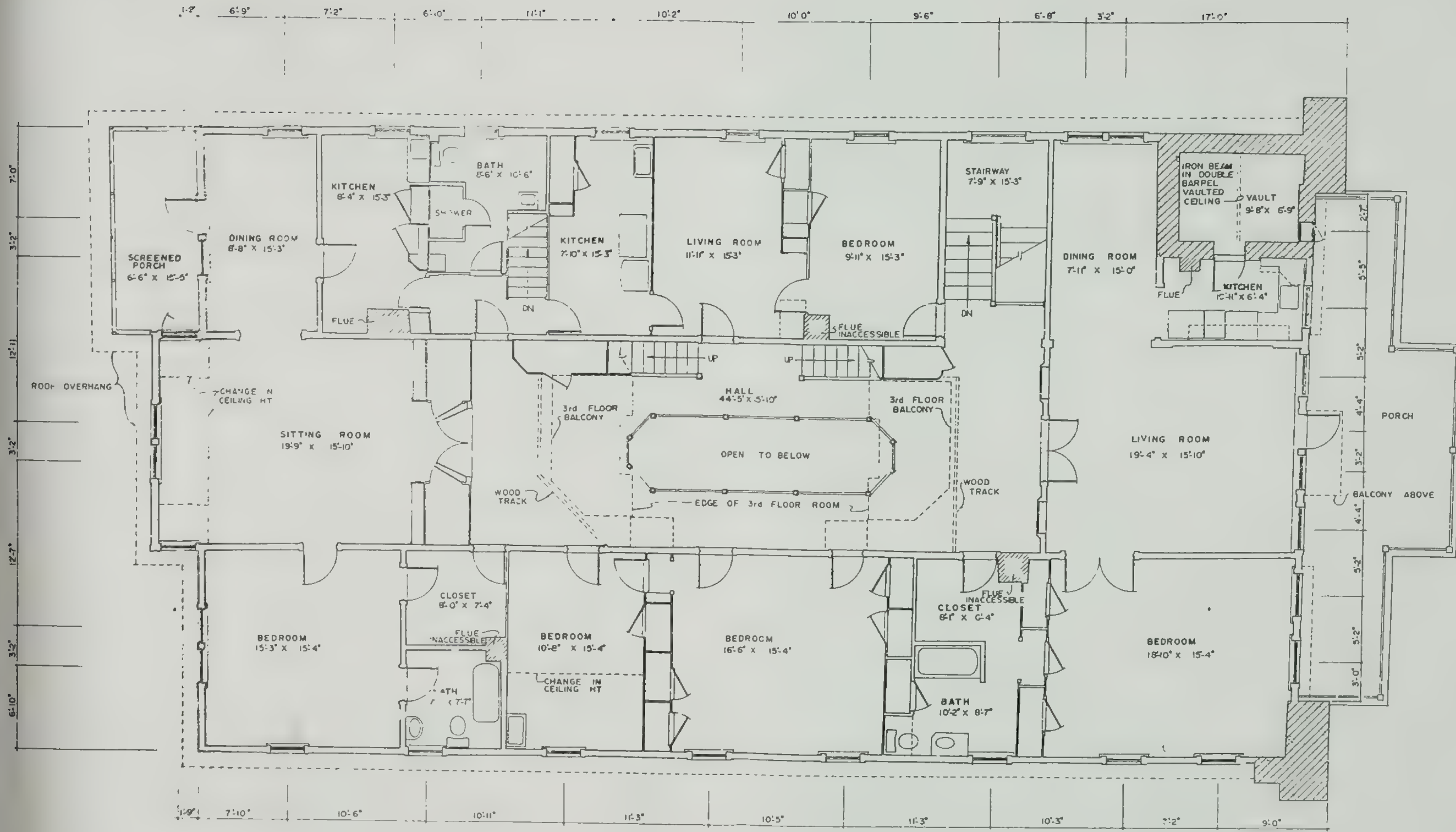
NOTE
ALL HALL CLOSETS, ORIGINALLY
OPENED INTO HALL AS INDICATED
IN DASHED LINES. DOORS ARE
STILL INTACT BUT NOT OPERABLE.
MAJOR CHANGES IN PLAN OCCURRED
BETWEEN 1929 AND 1942 WHEN
HOUSE WAS DIVIDED INTO APARTMENTS.

FINISHES
FLOORS WOOD ON ENTIRE HOUSE EXCEPT VAULT
WHICH IS MASONRY. KITCHENS, BATHS, AND
MIDDLE SECOND FLOOR BEDROOM ON EAST
HAVE LINOLEUM.
WALLS EXTERIOR WOOD FRAME WITH PLASTER FINISH
VAULT AND NE CORNER MASONRY CONSTRUCTION
INTERIOR- MOVABLE WOOD PARTITIONS WOOD
FRAME WITH WOOD OR PLASTER FINISH
SIGNUS CARPETS WITH BATTERS AND WOOD



Approximate Scale: $\frac{1}{8}" = 1'-0"$

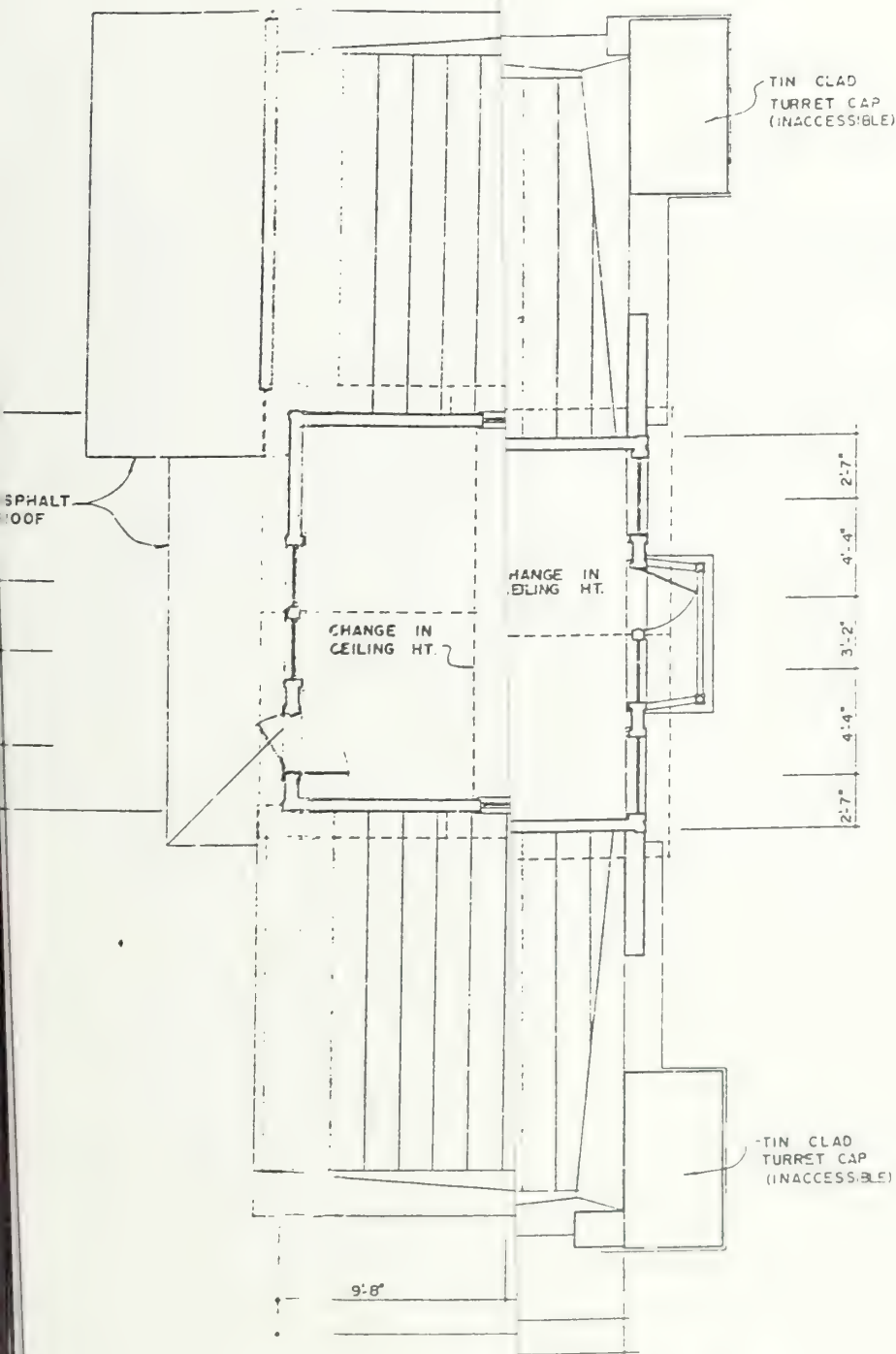




Drawing 12
Clara Barton House
Second Floor Plan-1977

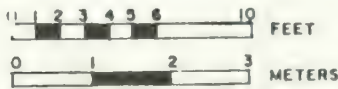
Approximate Scale: 1/8" = 1'-0"





Drawing 13
Clara Barton House
Third Floor Plan -1977

Approximate Scale: 1/8" = 1'-0"



MICHAEL D. SNYDER
NATIONAL CAPITAL PARKS
SANCTUARY - SNYDER - BALLARD
SANCTUARY FOR THE NATIONAL PARK SERVICE
SANCTUARY FOR THE NATIONAL PARK SERVICE

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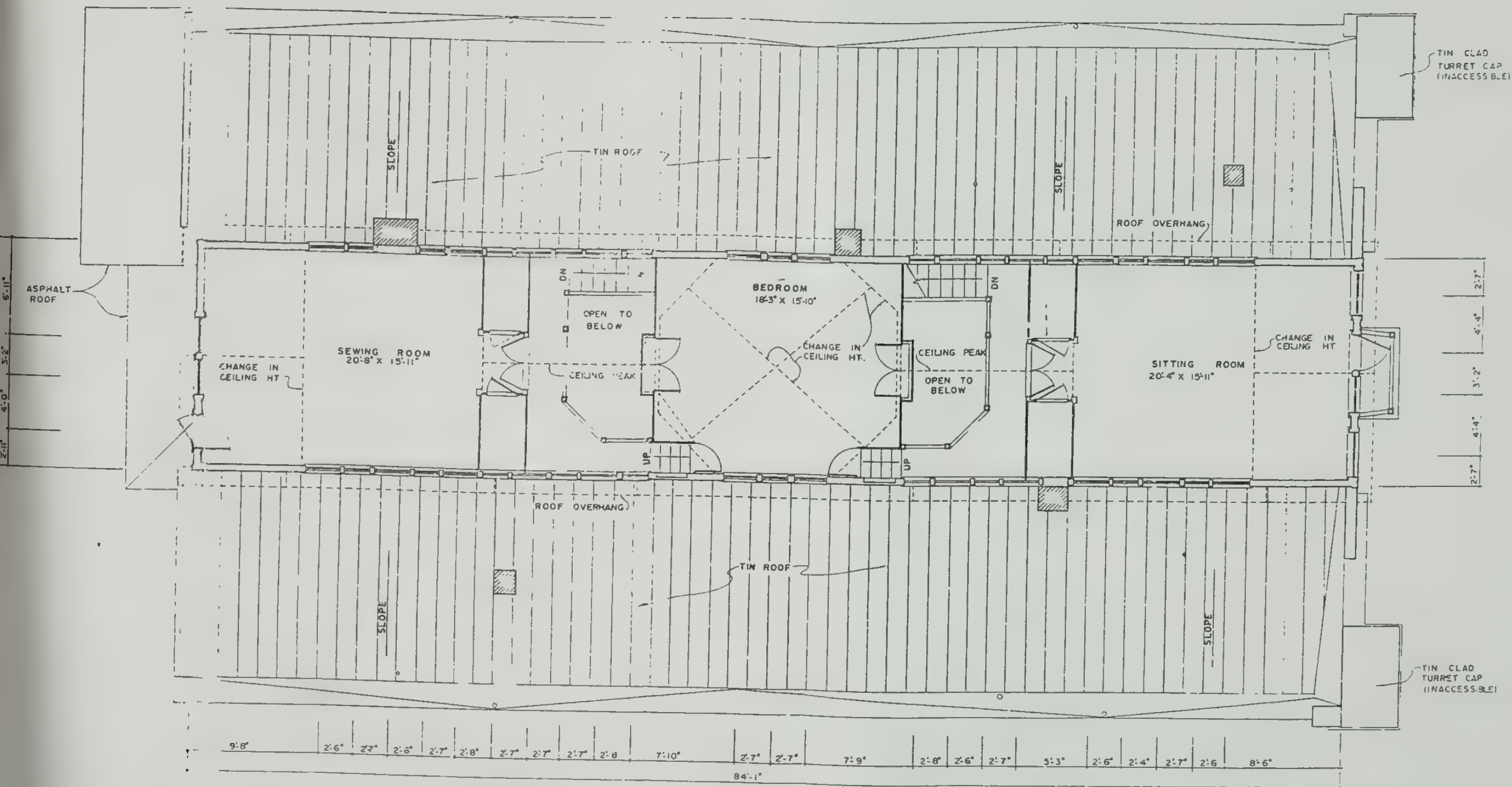
DAVID D. BALLARD

BEVERLY J. SANCHEZ

CLARA BARTON HOUSE
5801 OXFORD ROAD
GLEN ECHO
MONTGOMERY COUNTY
MARYLAND

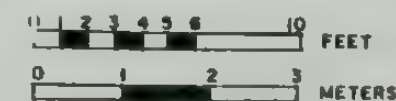
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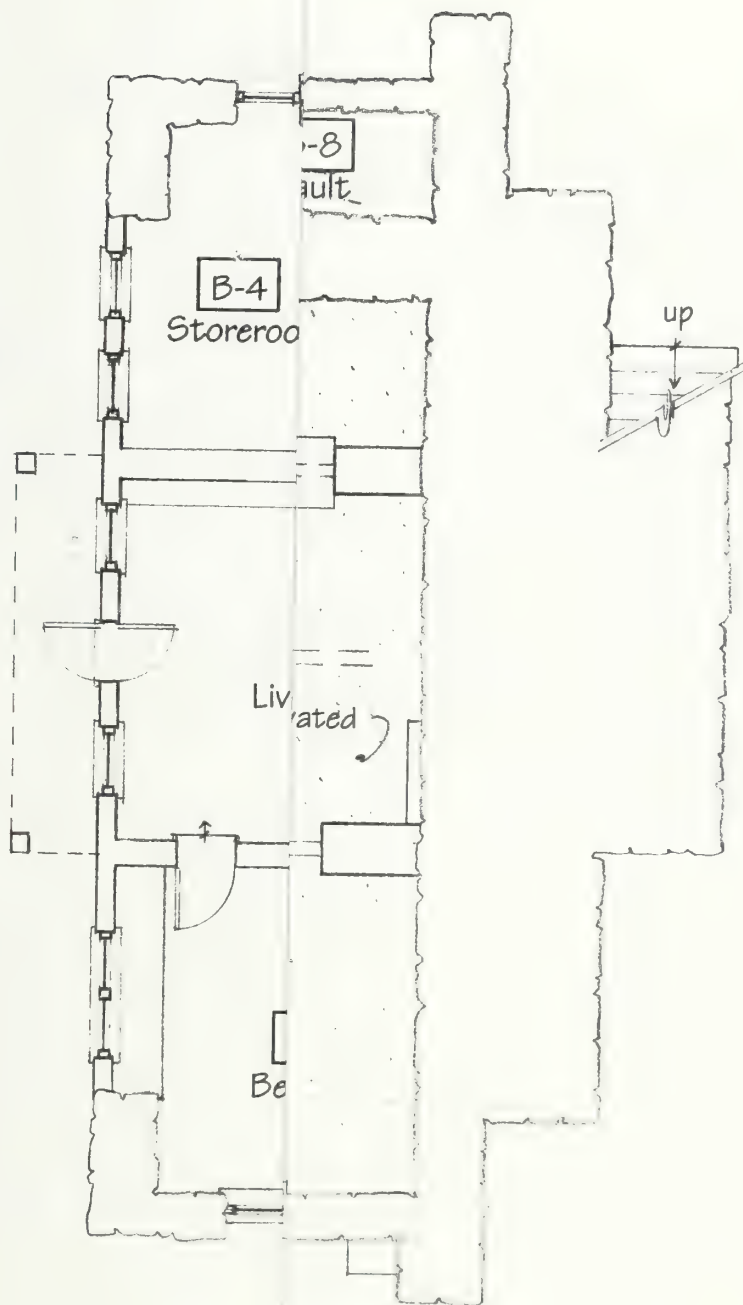
HISTORIC AMERICAN
BUILDINGS SURVEY
SHEET 5 OF 9 SHEETS



Drawing 13
Clara Barton House
Third Floor Plan -1977

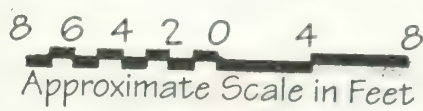
Approximate Scale: 1/8" = 1'-0"

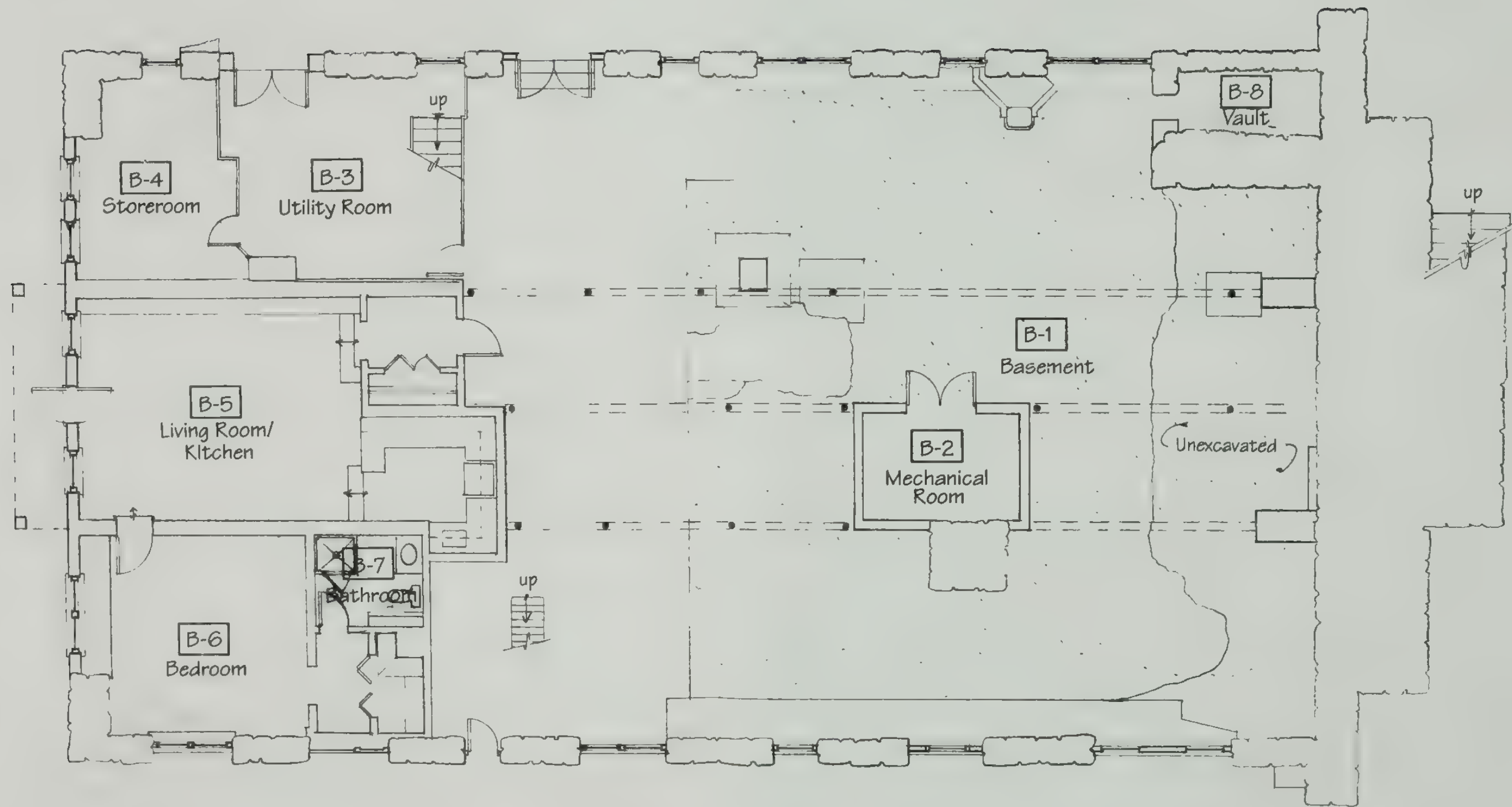




Drawing 14
 Clara Barton House-1996
 Basement Plan

Approximate Scale: $\frac{1}{8}" = 1'-0"$



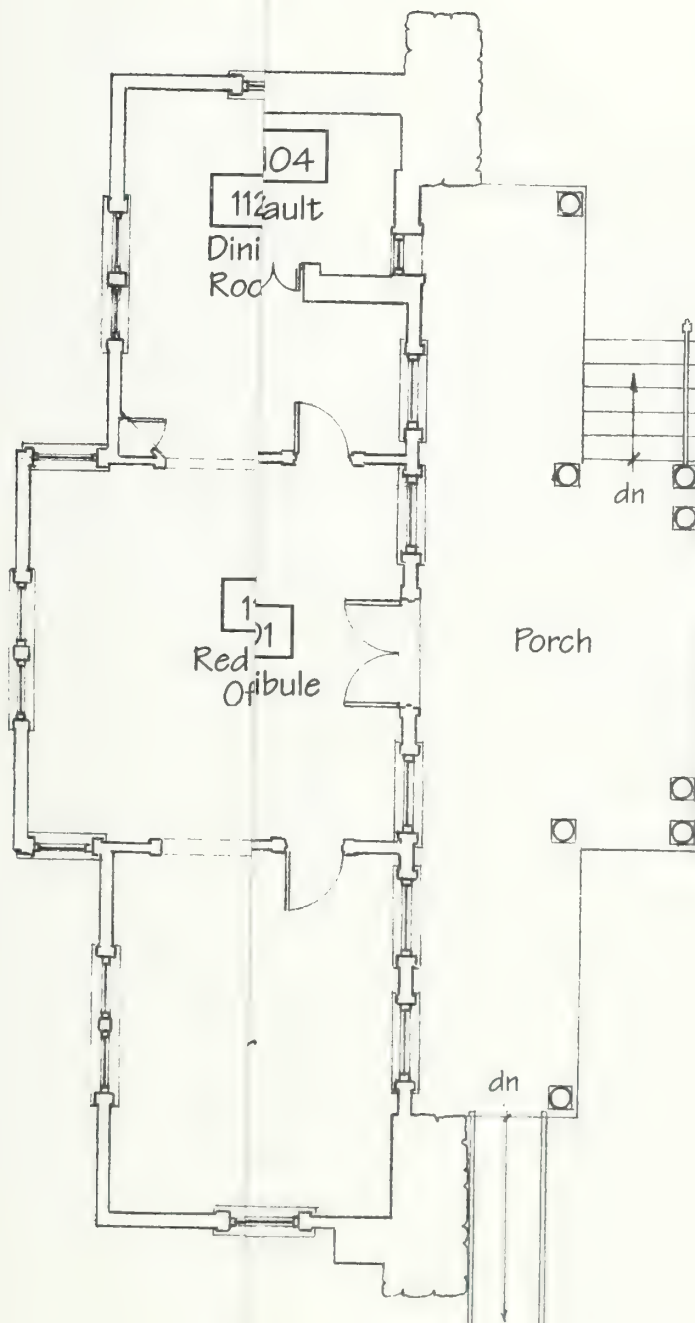


Drawing 14
Clara Barton House-1996
Basement Plan

Approximate Scale: $\frac{1}{8}" = 1'-0"$

8 6 4 2 0 4 8
Approximate Scale in Feet





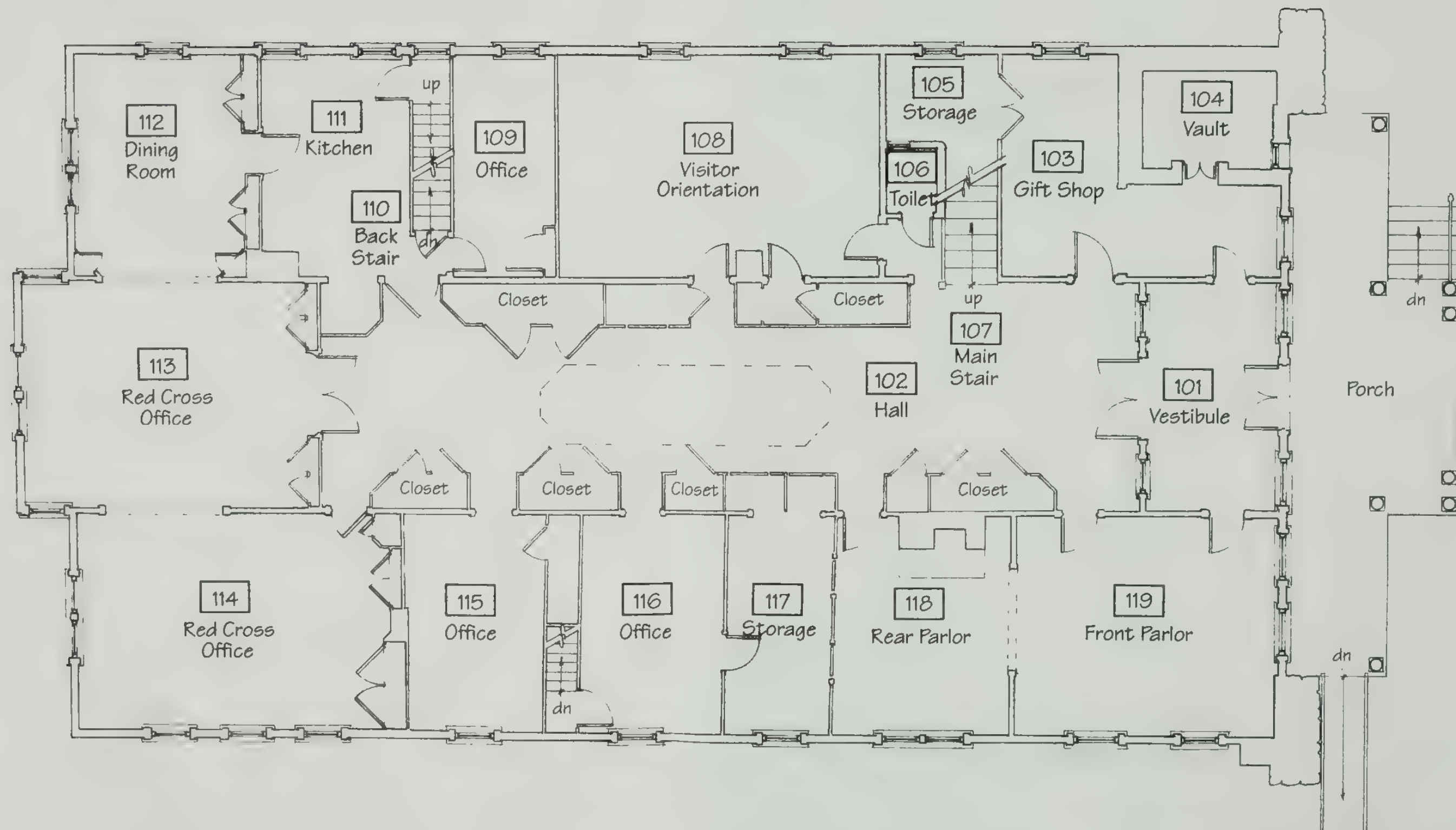
Drawing 15
Clara Barton House-1996
First Floor Plan

Approximate Scale: $\frac{1}{8}" = 1'-0"$

8 6 4 2 0 4 8

Approximate Scale in Feet



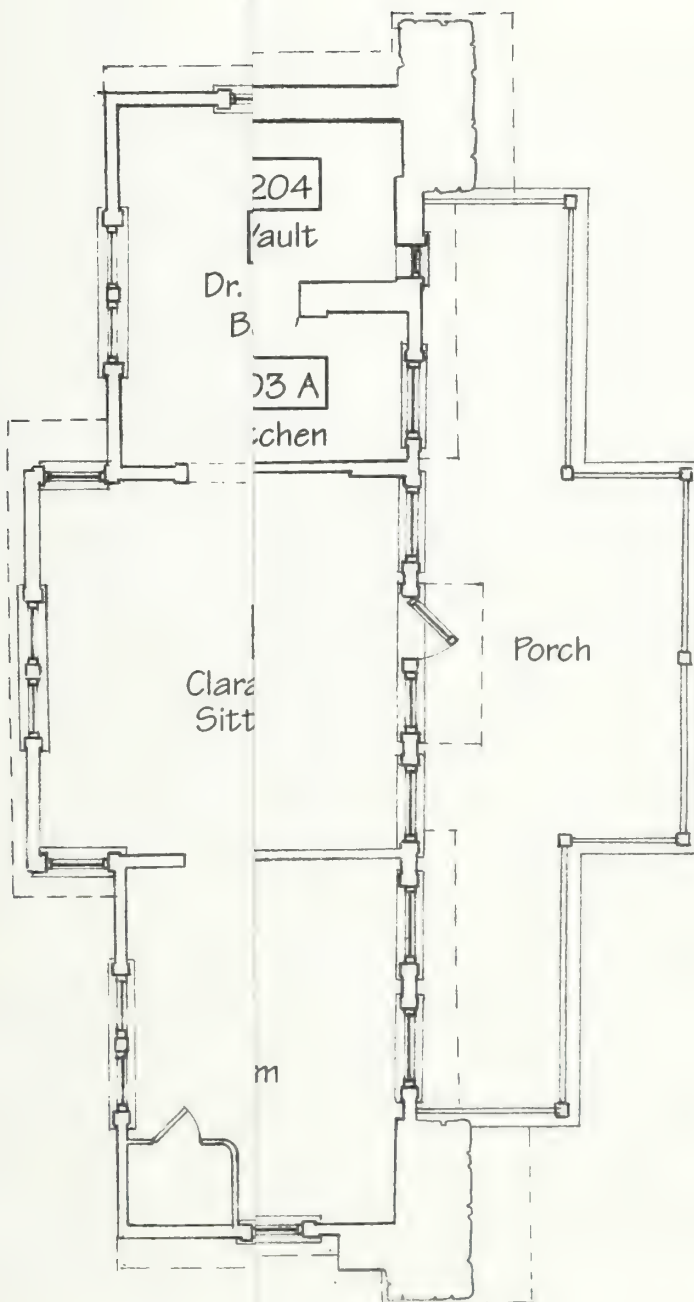


Drawing 15
Clara Barton House-1996
First Floor Plan

Approximate Scale: $\frac{1}{8}" = 1'-0"$

8 6 4 2 0 4 8
Approximate Scale in Feet



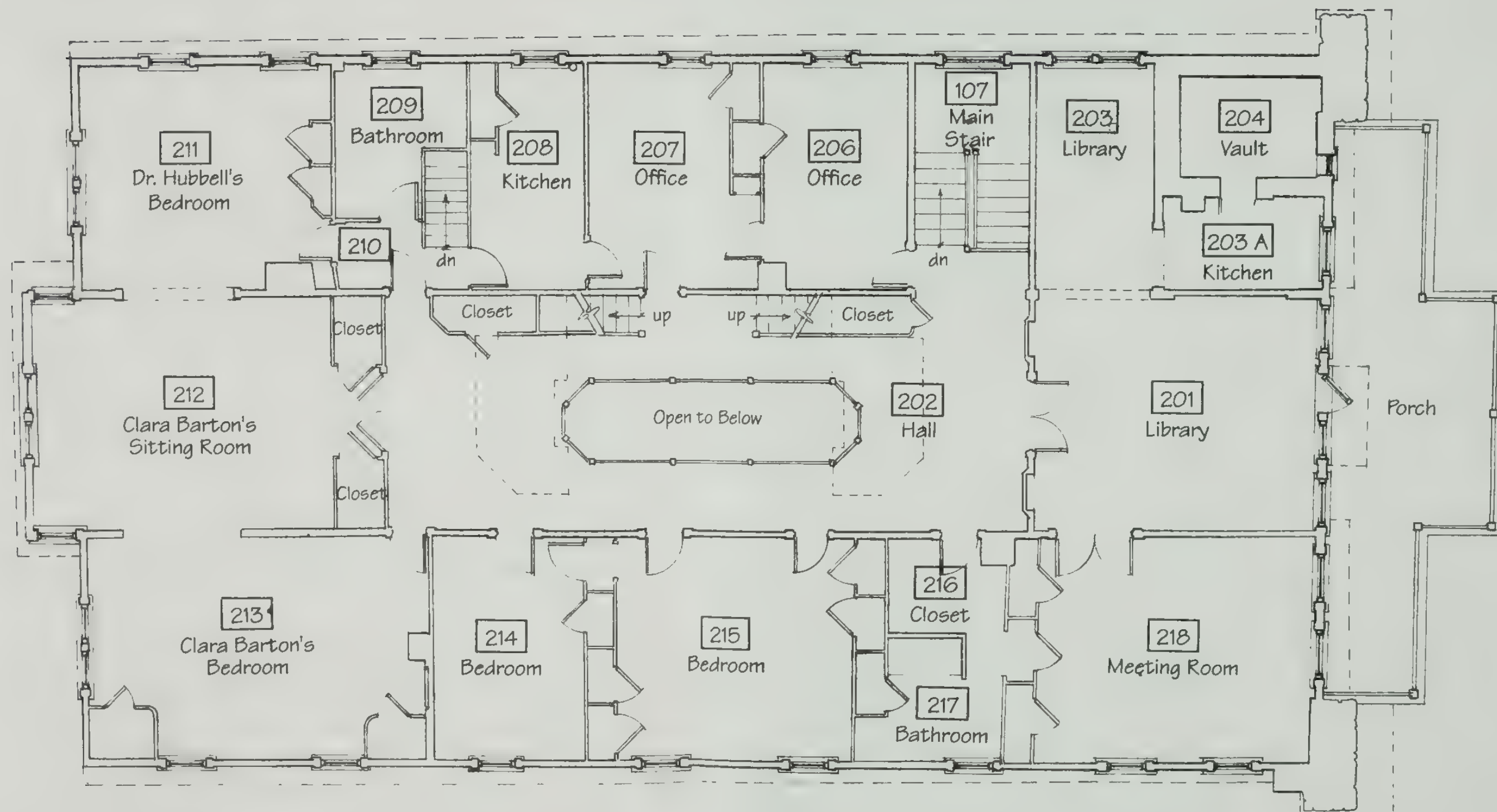


Drawing 16
 Clara Barton House-1996
 Second Floor Plan

Approximate Scale: $\frac{1}{8}" = 1'-0"$

8 6 4 2 0 4 8
 Approximate Scale in Feet



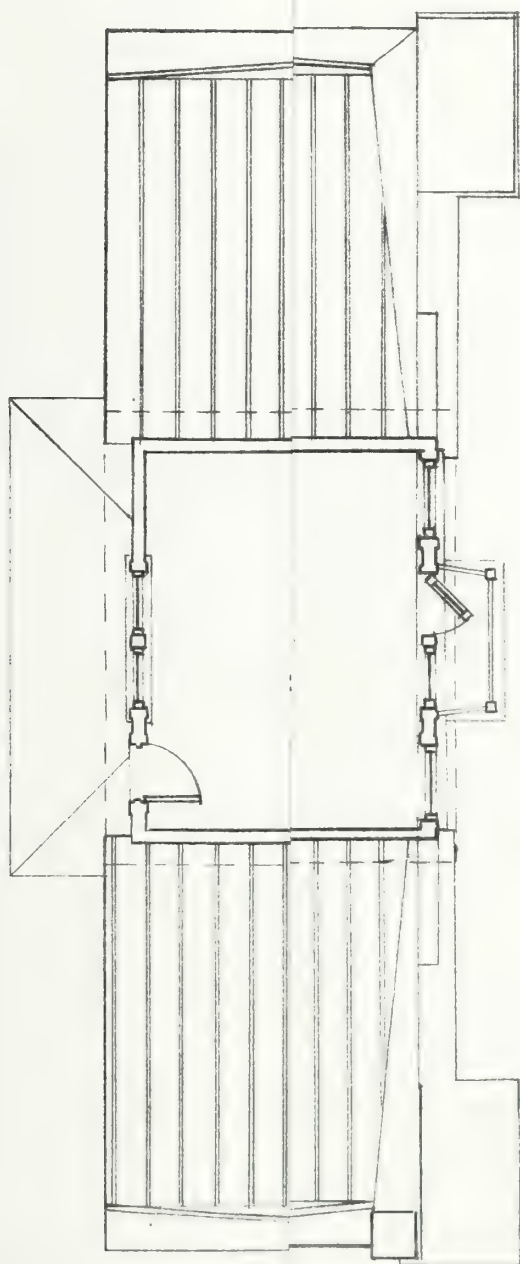


Drawing 16
Clara Barton House-1996
Second Floor Plan

Approximate Scale: $\frac{1}{8}" = 1'-0"$

8 6 4 2 0 4 8
Approximate Scale in Feet





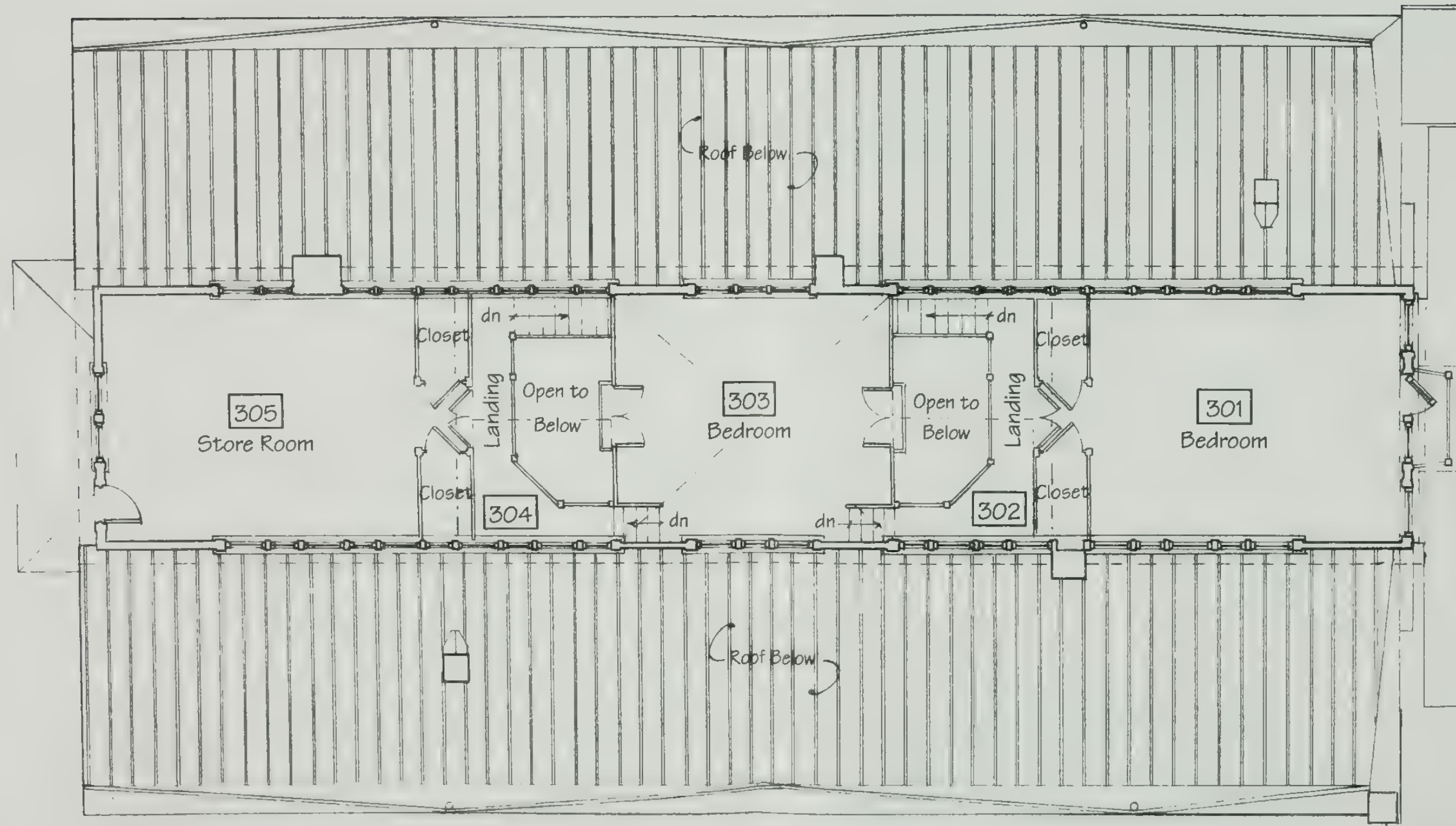
Drawing 17
 Clara Barton House-1996
 Third Floor Plan

Approximate Scale: $\frac{1}{8}" = 1'-0"$

8 6 4 2 0 4 8

Approximate Scale in Feet





Drawing 17
 Clara Barton House-1996
 Third Floor Plan

Approximate Scale: $1/8" = 1'-0"$

8 6 4 2 0 4 8

Approximate Scale in Feet



C. PHYSICAL DESCRIPTION OF EXISTING CONDITIONS

1. ARCHITECTURAL

a. Evaluation Criteria

In order to retain and preserve the character defining features of a property, those features must first be identified. For the Clara Barton House, each space in the building has been surveyed and the architectural features and finishes of each space have been recorded in the following Inventory of Significant Spaces and Details. Each part of the building has been evaluated and assigned a level of significance. This evaluation was based upon the following criteria:

Architectural Significance:

- What is the quality of the design, materials, detailing and craftsmanship?
- Is there known social, or historical significance?

Integrity:

- Are the original features and materials of the space intact?
- Have original features or material been removed or destroyed by later alterations?
- What is the physical condition of the original materials?

b. Architectural Preservation Zones

All of the spaces in the building have been divided into three zones: those of Primary Significance, those of Secondary Significance and those that are Not Significant. Significant spaces and features are those that date to the period of interpretation. Significant features may exist within non-significant spaces and all significant features, regardless of their respective zones, have been listed.

The Inventory of Significant Spaces and Details summarizes the significance of each space, indicates the finishes and the character defining elements of the space and provides a general guide for the desired level of preservation treatment. Specific recommendations for treatment are included in Part 2.

Areas of Primary Significance: These are areas of special architectural or documented historical significance which are important to the accurate interpretation of the site. Typically, these spaces contain significant original architectural or character defining features that should be preserved, restored, reconstructed and maintained.

These would be the primary public and private spaces in the building. They typically have a somewhat higher level of architectural detail and finish than other spaces in the house. In

these areas, the original details and materials should be retained and restored. Alterations should be limited to those necessary to accommodate modern systems, to achieve code compliance and to provide access for the disabled.

Areas of Secondary Significance: These are areas of architectural or documented historical significance which support the accurate interpretation of the site, or contain significant architectural or character defining features which must be protected, preserved, and maintained. Areas of secondary significance may contain significant original features that warrant treatment commensurate with those in areas of primary significance.

These are the secondary spaces of the building which contain a lower level of detail and finish, have been altered with the resulting loss of original details and materials, or cannot be reused in their original form. While alteration of the space can be accepted as part of the rehabilitation, significant materials and details should be retained.

Areas that are not Significant: These areas lack special architectural or documented historical significance and/or do not support the accurate interpretation of the site. Even though these areas may lack significance, they may never-the-less contain significant original features that warrant treatment commensurate with those in areas of primary significance. These spaces may be rehabilitated, altered or redesigned as required to support the needs of the site, but care should be taken not to adversely affect any significant features.

These are areas of the building which are utilitarian in function and finish or have been so completely altered that the space now contains little or no remaining significant architectural fabric. The spaces identified as not significant may be altered and redesigned as required for reuse of the building. They contain only a few significant elements and materials which should be retained if possible.

c. Inventory of Significant Spaces and Details

The following Inventory of Significant Spaces and Details lists the exterior and interior spaces of the building and their finishes. Materials believed to date from the period of interpretation are shown in bold-face type. Because the building was constructed and renovated utilizing both new and recycled materials, it is not always possible to accurately determine which features date from the original 1891 construction, the 1897 rehabilitation or from later alterations.

The diversity of materials used in the house is demonstrated by the presence of at least 8 different types of beaded boards and six different types of wood door and window casings. Many other types of wood trim can be found throughout the house including different types of base boards, base shoes and caps, and crown moldings. The diversity of trim types, coupled with the frequent use of trim in unconventional ways makes evaluation difficult. Unless indicated otherwise, all trim throughout the house is wood.

An analysis of the paint layers on painted trim and board partitions may help to establish a chronology of when the different types were introduced. While such an evaluation is beyond the scope of this historic structures report, an analysis of the paint layers on the wood trim throughout the house is an area recommend for further study. If a paint analysis is undertaken, care must be taken since the recycled wood trim used in the house may introduce paint layers that pre-date their installation at the Clara Barton House.

Like the trim, wall finishes also vary widely. Exposed beaded board walls are common throughout the house, and it is assumed that most of these date from 1891, with some added later but still within the period of interpretation. We know from diary entries that both fabric and plaster on wood lath wall finishes date from the 1897 rehabilitation. Observation suggests that the 1897 plaster work was rather crudely finished and that it presents a distinctive appearance that may help to differentiate it from both later plaster work and from the gypsum wall board that has been applied in recent years. Another common wall finish is fiberboard. Typically, fiberboard sheets were applied over existing wall surfaces, especially the board partitions. Since fiberboard is a relatively modern material, it is likely that the fiberboard was installed in the 1930's when the building was converted to apartments. It would have provided the benefits of a more finished and modern appearance than the beaded board while at the same time rendering a measure of acoustic insulation between rooms.

Through comparison with historic photographs, we know that the existing windows on the front and side elevations of the house match the configuration of the historic windows. The majority of the sash are in good condition but it is difficult to make a determination of their age. It has been reported that the Friends of Clara Barton replaced the windows on the front of the house in the 1960s. Other windows on the side and rear elevations may have also been replaced over time. As with other wood components of the house, paint analysis may assist in determining when windows were installed. As an additional aid in dating the windows, the frames and one sash from each of the two blind windows that were installed in front of the northeast wall of the vault remain, now concealed within the wall cavity. Since these frames and sash almost certainly date from the 1897 rehabilitation, they could be used both to establish the base paint layer for 1897, and for comparison with other windows on the front elevation.

Materials that are believed to date from the period of interpretation are shown below in **bold face** type. Materials known to post-date the period of interpretation are identified as "replacement" or "new" materials.

EXTERIOR OF THE HOUSE:

Northeast (Front) Elevation: The front elevation of the house with its massive stone corner towers and unique composition is one of the primary character defining features of the Clara Barton House and should be preserved and restored. Except for the two-story porch (See "Porch" below) and the two vault windows, the elevation appears much as it did during Miss Barton's occupancy. Primary Significance

- Wall Treatment: German Siding with a 5" exposure and a 1" undercut. The infill at the vault windows has a 6¼" exposure and a 1½" undercut.
- Door(s): See Room 101, Northeast Wall
- Window(s): See Rooms 101, 104, 119, 201, 203A, 204, 218 and 301, Northeast Walls
- Trim: Windows and door have simple 1x surrounds. At the first floor and third floors, the door and windows heads have an applied triangular "pediment" while the second floor openings have an applied segmental "pediment".
- Other Features: Stone Towers: The uncoursed rubble stone corner towers are remnants of the 1891 stone facade.

Southeast (Side) Elevation: This side elevation faces away from the approach to the building and is rarely viewed. It does not appear to have been altered since the 1897 renovation. Secondary Significance

- Wall Treatment: **German Siding with a 5¾" exposure and a ¾" undercut**
- Door(s): See Room B-1, Southeast Wall
- Window(s): See Rooms B-1, B-6, 114, 115, 116, 117, 118, 119, 213, 314, 215, 217 and 218, Southeast Walls
- Trim: **Windows and door have simple 1x surrounds.**
- Other Features:

Southwest (Rear) Elevation: The rear elevation is not visible from the approach to the building and is rarely viewed. It has undergone several changes since the period of interpretation. After Dr. Hubbell's death, the basement level of this elevation was altered when an apartment was created at the rear of the basement. The board and batten infill apparently dates from this period and destroyed any evidence of the basement carriage house. Later, during the ownership of Mrs. Noyes, the space under the rear porch that was constructed by Dr. Hubbell in 1911 was inclosed to create a garage. The garage and the porch were demolished in 19?? and missing siding on this elevation was replaced. Secondary Significance

- Wall Treatment: **German Siding with a 5" exposure and a ¾" undercut** (some replacement).
- Door(s): See Room B-1, Southeast Wall and Room 305, Southeast Wall
- Window(s): See Rooms, Southeast Walls
- Trim: **Windows and door have simple 1x surrounds.**

Northwest (Side) Elevation: This elevation is the primary facade visible on the approach to the building and provides the first impression of the house. Historic photos indicate that changes to this facade have been reversed and this facade now appears much as it did during the period of interpretation. Primary Significance

Wall Treatment: **German Siding of various sizes** separated by vertical trim boards. At the northeast end, and outside the kitchen and dining room, the siding has a 5" exposure and a 1¾" undercut, outside rooms 103 and 203 there is a 4½ to 5" exposure and a ¾" undercut, and at the southwest end of the wall there is a 5" exposure and a ¾" undercut.

Door(s): See Rooms B-1 and B-3, Southeast Wall

Window(s): See Rooms B-1, B-3, B-4, 103, 105, 107, 108, 109, 111, 112, 203, 206, 207, 208, 209 and 211, Southwest Walls.

Trim: **Windows and doors have simple 1x surrounds.**

Other Features:

Front Porch: The existing front porch was added to the house by Dr. Hubbell in 1917 or 1918, five to six years after the death of Clara Barton, and falls outside the period of interpretation for the site. While it can be argued that the porch has attained significance in its own right, as a prominent feature of the front elevation of the house, it presents an exterior appearance that is at odds with the time period the house is meant to interpret. In addition, the design of the porch is causing the accelerated deterioration of elements of the front elevation including the second floor window sills, window sash and trim, and areas of exterior siding.

It is reported, but not documented, that the existing porch retains virtually no original fabric. The columns are reported to have been replaced in the 1960s by the Friends of Clara Barton (ghosting from the bases of earlier columns is visible on the concrete porch deck, see Figure XX). And the National Park Service has re-roofed the structure and rebuilt the second floor railing.

Reconstructing the original 1897 porch will bring the exterior of the building into synch with the interior appearance of the house and present the house as it was during Miss Barton's lifetime. The wealth of historic photographs provide ample documentation of the appearance of the original porch, and drawings for its reconstruction were prepared by the National Park Service in January of 1978.

While the replacement of the porch is desirable from both interpretive and maintenance perspectives, the existing porch does provide an important programmatic function. It currently provides the only sheltered space where visitors can wait for tours. Not Significant

INTERIOR OF THE BUILDING:

BASEMENT:

Room B-1, Basement: This room occupies the majority of the space created when the basement was excavated in 1897. It is an unfinished space that was used primarily for storage. Not Significant

Flooring: **Exposed earth** with partial concrete slab.

Northeast Wall: Wall Finish: **Uncoursed rubble stone.**

Door(s): None

Window(s): None

Trim: None

Southeast Wall: Wall finish: **Uncoursed rubble stone** with concrete buttressing.

Door(s): 1) Exterior board door (Undetermined)

Window(s): (2) pairs six-light fixed, (2) single six-light fixed (Undetermined)

Trim: None

Southwest Wall: Wall finish: **Vertical board partition**/Gypsum wall board.

Door(s): (1) **board door**, (1) contemporary hollow core door.(

Window(s): None

Trim: Door casing: ?

Northwest Wall: Wall finish: **Uncoursed rubble stone**, concrete.

Door(s): (1) pair of exterior board doors. (Undetermined)

Window(s): (2) pairs six-light fixed, (2) single six-light fixed (Undetermined)

Trim: None

Ceiling: **Exposed joists.** (The original joist have been supplemented with additional, non-historic joists)

Room B-2, Mechanical Room: This enclosure, contained within Room B-1, was constructed by the National Park Service in 1979. Not Significant

Flooring: Concrete slab.

Northeast Wall: Wall Finish: CMU

Door(s): None

Window(s): None

Trim: None

Southeast Wall: Wall finish: CMU

Door(s): None

Window(s): None

Trim: None

Southwest Wall: Wall finish: CMU

Door(s): None

Window(s): None

Trim: None

Northwest Wall: Wall finish: CMU

Door(s): Paired steel doors.

Window(s): None

Trim: None

Ceiling: Gypsum wall board?

Clara Barton National Historic Site

Room B-3, Utility Room: This room was used as a basement kitchen during the period of interpretation. The secondary stairs leading down from the kitchen access this room. After the 1897 renovation it contained a wood stove with a boiler to generate domestic hot water. A stove pipe originally connected to the chimney in the south corner of this room. Secondary Significance

Flooring: Concrete slab.

Northeast Wall: Wall Finish: **Vertical board partition.**
Door(s): See Room B-1
Window(s): None
Trim: None

Southeast Wall: Wall finish: **Vertical board partition.**
Door(s): None
Window(s): None
Trim: None

Southwest Wall: Wall finish: **Vertical board partition.**
Door(s): **(1) Board door**
Window(s): None
Trim: None

Northwest Wall: Wall finish: **Uncoursed rubble stone.**
Door(s): (1) Pair exterior board doors
Window(s): (1) Six-light fixed
Trim: None

Ceiling: **Exposed joists.** (The original joist have been supplemented with additional, non-historic joists)

Room B-4, Store Room: This room opens off of Room B-3 and was probably the servant room that was constructed in August of 1897. A stove pipe originally connected to the chimney at the east corner of this room. Secondary Significance

Flooring: Concrete slab.

Northeast Wall: Wall Finish: **Vertical board partition.**

Door(s): See Room B-3

Window(s): None

Trim: None

Southeast Wall: Wall finish: **Vertical board partition.**

Door(s): None

Window(s): None

Trim: None

Southwest Wall: Wall finish: **Vertical board/Uncoursed rubble stone.**

Door(s): None

Window(s): (2) Six-over-six double-hung.

Trim: None

Northwest Wall: Wall finish: **Uncoursed rubble stone.**

Door(s): None

Window(s): (1) Six-over-six double-hung.

Trim: None

Ceiling: **Exposed joists.** (The original joist have been supplemented with additional, non-historic joists)

Clara Barton National Historic Site

Room B-5, Living Room/Kitchen: These rooms are part of the NPS quarters created since 1979. This space is the most likely location for the basement carriage house and it was converted into an apartment after the period of interpretation. There is evidence that a stove pipe, probably dating to the time it was used as an apartment, once connected to the chimney along the northwest wall of this room . Not Significant

Flooring: Concrete slab on grade with tile squares

Northeast Wall: Wall Finish: Gypsum Wall Board

Door(s): See Room B-1, southeast wall.

Window(s): None

Trim: Door Casing: Wood
Base: Wood

Southeast Wall: Wall finish: Gypsum Wall Board

Door(s): (1) Wood hollow core

Window(s): None

Trim: Door casing: Wood
Base: Wood

Southwest Wall: Wall finish: Gypsum Wall Board

Door(s): (1) Exterior 15-light glazed

Window(s): (2) Six-over-six double-hung?

Trim: Door casing: Wood
Window casing: Wood
Base: Wood

Northwest Wall: Wall finish: Gypsum Wall Board

Door(s): None

Window(s): None

Trim: Base:

Ceiling: Gypsum Wall Board

Room B-6, Bedroom: This room is part of the NPS quarters created since 1979. Not Significant

Flooring: Wood

Northeast Wall: Wall Finish: Gypsum Wall Board

Door(s): None

Window(s): None

Trim: Door Casing: Wood
Base: Wood

Southeast Wall: Wall finish: **Uncoursed Rubble Stone**/Gypsum Board

Door(s): None

Window(s): Paired six-over-six double-hung

Trim: Base: Wood

Southwest Wall: Wall finish: **Uncoursed Rubble Stone**/Gypsum Board

Door(s): None

Window(s): Paired six-over-six double-hung

Trim: Window casing:
Base:

Northwest Wall: Wall finish: Gypsum Board

Door(s): See Room B-5, Southeast Wall

Window(s): None

Trim: Door Casing: Wood
Base: Wood

Ceiling: Gypsum Board

Clara Barton National Historic Site

Room B-7, Bathroom: This room is part of the NPS quarters created since 1979. Not Significant

Flooring:	Tile Squares
Northeast Wall:	Wall Finish: Gypsum Board
	Door(s): None
	Window(s): None
	Trim: Base:
Southeast Wall:	Wall finish: Gypsum Board
	Door(s): (1) Wood hollow core
	Window(s): None
	Trim: Door casing: Base:
Southwest Wall:	Wall finish: Gypsum Board
	Door(s): None
	Window(s): None
	Trim: Base:
Northwest Wall:	Wall finish: Gypsum Board
	Door(s): None
	Window(s): None
	Trim: Base:
Ceiling:	Gypsum Board

Room B-8, Vault: This space is enclosed by the foundation of the two story masonry vault. After the basement was excavated in 1897, a door was created into this space. Secondary Significance

Flooring: **Brick pavers**

Northeast Wall: Wall Finish: **Uncoursed rubble stone**

Door(s): None

Window(s): None

Trim: None

Southeast Wall: Wall finish: **Uncoursed rubble stone**

Door(s): None

Window(s): None

Trim: None

Southwest Wall: Wall finish: **Rubble Stone/Brick**

Door(s): **(1) Board Door**

Window(s): None

Trim: None

Northwest Wall: Wall finish: **Rubble Stone**

Door(s): None

Window(s): None

Trim: None

Ceiling: **Brick vaults**

FIRST FLOOR:

Room 101, Vestibule: The vestibule is the main entrance into the building. It provides access to the center hall (Room 102) as well as to the front parlor (Room 118) and to Room 103, which is now the gift shop. With the reconstruction of the southwest wall in its original location, this room has been returned to its original size. It retains most of its historic fabric. A stove pipe originally went up through the ceiling to a drum in the library (Room 201). This was later changed to run through the wall into Room 103 where it connected to a chimney that was corbeled out from the wall of the vault. Primary Significance (see Figure

Flooring: **Random width tongue-and-groove pine boards.**

Northeast Wall: Wall finish: **Vertical beaded board (type 3) over stud wall.**

Door(s): **Paired exterior two-panel doors, top panel arched.**

Window(s): (2) **Four-over-two, double hung. (Undetermined)**

Trim: Door Casing: **Symmetrical trim (type 1) on plinth with bull's-eye corner blocks (type 2).**

Window Casing: **Symmetrical trim (type 1) with bull's-eye corner blocks (type 1). Ogee stool trim with beaded apron.**

Base: **Plain baseboard with ogee shoe and cap.**

Crown: **Cyma recta crown molding.**

Southeast Wall: Wall finish: **Vertical beaded board (type 3) over stud wall.**

Door(s): (1) **Five-panel with a three-light transom.**

Window(s): **None**

Trim: Door casing: **"Victorian trim" (type 2).**

Base: **Plain baseboard with ogee shoe and cap.**

Crown: **Cyma recta crown molding.**

21.

Southwest Wall: Wall finish: **Vertical beaded board (type 3) over stud wall.**

Door(s): **Paired five-panel, top two lights glazed as one, five-light transom.**

Window(s): (2) **Two-over-two.**

Trim: Door casing: **"Victorian trim" (type 2)**
Window casing: Replacement symmetrical trim (similar to type 1) with replacement bull's-eye corner blocks (similar to type 1).
Ogee stool trim with replacement beaded apron.
Base: **Plain baseboard** with replacement ogee shoe and cap.
Crown: **Cyma recta crown molding.**

Northwest Wall: Wall finish: **Vertical beaded board (type 3) over stud wall.**

Door(s): **(1) Five-panel with three-light transom.**

Window(s): None

Trim: Door Casing: **"Victorian trim" (type 2).**
Base: **Plain baseboard with ogee shoe and cap.**
Crown: **Cyma recta crown molding.**

Ceiling: **Original muslin patched at location of original stove pipe.**

Room 102, Hall: The multi-story central hall is the primary organizational feature of the interior of the house. Almost every room in the building opens off of this space. It retains much of its historic fabric and has not been significantly altered. Primary Significance (see Figure 40)

Flooring: **Original random-width tongue-and-groove pine flooring.**

Northeast Wall: Wall finish: Reconstructed stud wall finished with **vertical beaded board (type 3?)** (Replacement material has been pieced in to supplement missing historic fabric).

Door(s): See Room 101, Southwest Wall.

Window(s): See Room 101, Southwest Wall.

Trim: Door casing: **"Colonial" trim (type 3) with bull's-eye corner blocks (type 3).** The top of the casing was trimmed off to clear the ceiling.
Window casing: Replacement "colonial" trim (similar to type 3) with replacement bull's-eye corner blocks (similar to type 2).
Replacement beaded apron.
Base: Replacement square beaded trim similar to that at board and batten closets.
Crown: **Robust quarter-round at ceiling.**

- Southeast Wall:** **Most of this wall is lined with (type 1) board-and-batten storage closets from 1897. At the back of the closets, the 1 x 12 vertical boards or (type 1) random width beaded boards remain intact on the stud framing of the original 1891 hall wall. Between the Vestibule and the closets the stud wall is covered with (type 3) beaded board.**
- Door(s): (5) Four-panel doors with single light transoms into each room.**
- Window(s): None.**
- Trim:** Door casing: "Colonial" trim (type 3) with bull's-eye corner blocks (type 3) at each doorway.
Base: Square beaded trim (with bead at top) used to anchor the base of the board and batten closet wall.
Crown: Square beaded trim (with bead at bottom) used to anchor the top of the board and batten closet wall.
- Southwest Wall:** **(Type 1) random width vertical beaded board partition.**
- Door(s): Paired five-panel, top-half glazed, five-light transom. Each glazed panel has a red cross and the inscription "American Association of the Red Cross". The swing on these doors has been reversed.**
- Window(s): None.**
- Trim:** Door casing: "Victorian" trim (type 2) with quarter-round.
Base: Square beaded trim like that at board and batten closets
Crown: Quarter-round at ceiling.
- Northwest Wall:** **This wall is lined with (type 1) board-and-batten storage closets from 1897. At the back of the closets, the (type 1) random width vertical beaded boards on the stud framing of the original 1891 hall wall remains intact. Toward the northeast end is a cased archway opening into the main stair (Room 107).**
- Door(s): (2) Four-panel doors with single light transoms into each room. At the northeast end is a four-panel door with no transom.**
- Window(s): None.**
- Trim:** Door casing: "Colonial" trim (type 3) with bull's-eye corner blocks (type 3) at each doorway. The archway to the stairs is

also cased with "colonial" trim (type 3) with bull's-eye corner blocks (type 3).

Ceiling: Original muslin. The central area of the ceiling above this space is open to the floors above.

Room 103, Gift Shop: This room wraps around two sides of the first floor vault (Room 104) and was probably originally divided into two rooms following the line of the back wall of the vault. The portion of the room to the rear of the vault is the most likely original location of the main stair up to the second floor. This room retains a fairly large amount of its historic fabric, but its historic use is not known. Not Significant

Flooring: Random width tongue-and-groove pine boards.

Northeast Wall: Wall finish: **Plaster on wood lath over stud framing at front wall.**
Fiberboard or plaster on brick at back of safe.

Door(s): None.

Window(s): (1) Four-over-two, double hung.

Trim: Window casing: Symmetrical trim (type 1) with bull's-eye corner blocks (type 1). Quarter-round stool trim with a plain apron.

Southeast Wall: Wall finish: **Plaster on wood lath over stud framing.**

Door(s): Northeast door-See Room 101, Northwest Wall. **The southwest door is a four-panel door with no transom.**

Window(s): None

Trim: Door casing: Sanitary trim (type 4) with mitered corners at Northeast door. The trim at the head of this door is partially buried in the ceiling. "Colonial" trim (type 3) with bull's-eye corner blocks (type 2) at southwest door.
Base: Plain baseboard with beveled shoe.

Southwest Wall: Wall finish: **Plaster on wood lath over stud framing.**

Door(s): **Beaded board access doors to under-stair storage space (Room 105).**

Window(s): None

Trim: Door casing: "Colonial" trim (type 3) with bull's-eye corner blocks (type 3) at storage access door.
Base: Plain baseboard with ogee shoe

Northwest Wall: Wall finish: **Plaster on wood lath over stud framing at outside wall. Plaster on brick at safe.**

Door(s): Outer door to safe is missing, **inner double-leaf steel doors** remain.

Window(s): (1) Six-over-six, double-hung.

Trim: Door casing: Profiled iron trim with iron corner blocks.
Window casing: Sanitary trim (type 4) with bull's-eye corner blocks (type).
Base: Plain baseboard with beveled shoe.

Ceiling: **Plaster on wood lath.**

Room 104, Vault: The two story vault is one of the most unusual features of this building. It was constructed as a fire-proof storage space for important Red Cross documents. Except for the loss of the outer vault door, and the creation of the small casement window in the northeast wall, it is largely unchanged from its original condition. Primary Significance: (see Figure 41)

Flooring: **Concrete over brick vaults.**

Northeast Wall: Wall finish: **Painted brick.** (The paint may post-date the period of interpretation)

Door(s): None.

Window(s): Four-light casement. In 1897 there was a "blind" four-over two window in this location. **On the front elevation, the exterior surround of this window remains. The window frame and bottom sash are encased within the wall.**

Trim: None

Southeast Wall: Wall finish: **Painted brick.** (The paint may post-date the period of interpretation)

Door(s): See Room 103, Northwest wall.

Window(s): None

Trim: None

Southwest Wall: Wall finish: **Painted brick.** (The paint may post-date the period of interpretation)

Door(s): None

Window(s): None

Trim: None

Northwest Wall: Wall finish: **Painted brick.** (The paint may post-date the period of interpretation)

Door(s): None

Window(s): None

Trim: None

Ceiling: **Painted brick vaults.** (The paint may post-date the period of interpretation)

Room 105, Storage: This area occupies the space beneath the main stairs. Not Significant

Flooring: **Original 3½" tongue-and-groove pine flooring.**

Northeast Wall: Wall finish: **Plaster on wood lath over stud framing.**

Door(s): See Room 103, Southwest wall.

Window(s): None

Trim: Base: Plain 1x

Southeast Wall: Wall finish: **Plaster on wood lath over stud framing.**

Door(s): None

Window(s): See Room 106, Northwest Wall. This window is covered over on this side to provide privacy in Room 106.

Trim: Window Casing: Plain 1x
Base: Plain 1x

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Southwest Wall: Wall finish: **Plaster on wood lath over stud framing.**
Door(s): None
Window(s): None
Trim: Base: Plain 1x

Northwest Wall: Wall finish: **Plaster on wood lath over stud framing.**
Door(s): None
Window(s): Six-light awning.
Trim: Window casing: Colonial trim (type 3) cut square at the top with no trim at head.
Base: Plain 1x

Ceiling: **Underside of stair.**

Room 106, Toilet: This facility post-dates the period of interpretation and is located under the main stairs. Not Significant

Flooring: Vinyl tile. **The original random-width tongue-and-groove pine floor is probably intact below.**

Northeast Wall: Wall finish: Fiberboard
Door(s): None
Window(s): None
Trim: Base: Contemporary door casing used as base.

Southeast Wall: Wall finish: Exposed studs with back side of (type 6) beaded board visible.
Door(s): (1) Four-panel door.
Window(s): None
Trim: Door Casing: Contemporary door casing runs up the left side of the door and across the head to the far wall.

Southwest Wall: Wall finish: **Plaster on wood lath.**

Door(s): None

Window(s): None

Trim: Base: Plain baseboard with ogee cap.

Northwest Wall: Wall finish: Plaster on wood lath.

Door(s): None

Window(s): Six-light casement into Room 105.

Trim: Window casing: "Colonial" trim with mitered corners.

Horizontal beaded board as facing on stool.

Base: Plain baseboard with ogee cap.

Ceiling: Gypsum wall board.

Room 107, Main Stairway: The stairway was moved to this location in 1897 enlarge the space adjacent to Room 201 for use as a library. The walls have been re-plastered and the bottom tread altered, but otherwise, the stair remains unchanged. Primary Significance

Flooring: **Original pine treads and original tongue-and-groove pine landing.** Ghosting indicates that the bottom tread has been reduced in size. **In addition, the stair retains its original balustrade and newel post.**

Northeast Wall: Wall finish: Replacement plaster on wood lath over stud framing.

Door(s): None

Window(s): None

Trim: Base: Plain baseboard with ogee cap and shoe.

Southeast Wall: **Archway opens into Hall (Room 102).** To the southeast of the archway is a short section of wall with plaster on wood lath.

Door(s): None

Window(s): None

Trim: Door casing: Sanitary trim (type 4) with bull's-eye corner blocks (type 3)

Base: Plain baseboard with ogee cap and shoe.

Southwest Wall: Wall finish: Replacement plaster on wood lath.

Door(s): (1) Two-panel.

Window(s): None

Trim: Door casing: "Colonial" trim (type 3).

Base: Plain baseboard with ogee cap and shoe.

Northwest Wall: Wall finish: Replacement plaster on wood lath over stud framing with a beaded board partition at the toilet (Room 106).

Door(s): See Room 106, Southeast Wall.

Window(s): (1) Fixed, 24-light sash. (Historic photos show a 24-light window of similar size with stained glass at the center of the sash. It is not known if this is the same window with the stained glass removed, or if it is a replacement sash.

Trim: Window casing: Symmetrical trim (type 1) with bull's-eye corner blocks (type 1). Ogee stool trim with beaded apron.

Base: Plain baseboard with ogee cap.

Room 108, Visitor Orientation: Ghosting indicates that this room was originally divided into two rooms. It is not known what purpose the two smaller room served, nor is known when or why the single larger room was created. A patch on the chimney along the southeast wall of this room suggests that a stove may once have been connected here. This room retains much of its original fabric but its original uses are not known. Secondary Significance

Flooring: **Random-width tongue-and-groove pine flooring.**

Northeast Wall: Wall finish: **Plaster on wood lath over stud framing.**

Door(s): See Room 107, Southwest Wall

Window(s): None

Trim: Door casing: Contemporary trim.

Base: Sanitary baseboard.

Southeast Wall: Wall finish: **Plaster on wood lath over stud framing.**

Door(s): Southwest door-see Room 102, Northwest wall. Northeast door - **Four-panel with single light transom.**

Window(s): None

Trim: Door casing: Sanitary trim (type 4) with mitered corners.
Base: Sanitary baseboard.

Southwest Wall: Wall finish: Fiberboard over **original board partition.**

Door(s): None

Window(s): None

Trim: Base: Sanitary baseboard.
Crown: Square with beveled edge

Northwest Wall: Wall finish: **Plaster on wood lath over stud framing.**

Door(s): None

Window(s): (2) Six-over-six, double-hung.

Trim: Window casing: Northeast window-symmetrical trim (type 1) with bull's-eye corner blocks (type 1). Quarter-round stool trim with plain apron. Southwest window-sanitary trim (type 4) with mitered corners. Beveled stool trim with sanitary apron.
Base: Sanitary baseboard.

Ceiling: **Plaster on wood lath.**

Room 109, Office: This room is separated from the kitchen (Room 111) by the back stairs. It is the most likely location of the pantry. This assumption is supported by the presence of two doors (one, at the foot of the second floor stairs that has been sealed up) that link the two rooms. In the room, there is the remnant of a glass fronted cabinet typical of those found in kitchen pantries. Despite this evidence, this room has lost most of the features that would identify it as the pantry. Not Significant

Flooring: Carpet over tile squares. **The original random-width tongue-and-groove pine flooring is intact below.**

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- Northeast Wall: Wall finish: Fiberboard over **original board partition**. Horizontal $\frac{3}{8}$ " x 1 $\frac{3}{8}$ " batten approximately 4 feet above the floor. **Built-in cabinet with glazed door**.
- Door(s): None
- Window(s): None
- Trim: Base: **Sanitary baseboard with ogee shoe**.
Crown: **Square with beveled edge**.
- Southeast Wall: Wall finish: Fiberboard over plaster? on stud framing. Horizontal $\frac{3}{8}$ " x 1 $\frac{3}{8}$ " batten approximately 4 feet above the floor.
- Door(s): None
- Window(s): None
- Trim: Base: Sanitary baseboard with ogee shoe.
- Southwest Wall: Wall finish: Fiberboard over **original random width beaded board partition**. Horizontal $\frac{3}{8}$ " x 1 $\frac{3}{8}$ " batten approximately 4 feet above the floor.
- Door(s): See Room 110, Northeast Wall.
- Window(s): None
- Trim: Door casing: Narrow sanitary trim (similar to type 4)
Base: Sanitary baseboard with ogee shoe.
- Northwest Wall: Wall finish: **Plaster on wood lath over stud framing**. Horizontal $\frac{3}{8}$ " x 1 $\frac{3}{8}$ " batten approximately 4 feet above the floor.
- Door(s): None
- Window(s): (1) Six-over-six, double-hung.
- Trim: Window casing: Sanitary trim with mitered corners. Chamfered stool trim with a sanitary apron.
- Ceiling: **Plaster on wood lath**.

Room 110, Back Stair Up: It is not known when this stair was constructed. It appears that the steps up to the second floor were constructed at the same time as the flight down to the basement. Since there was no basement before 1897, it is reasonable to conclude that these stairs were constructed in 1897. The fact that the walls are of beaded board strongly suggests that the stairs date from within the period of interpretation since beaded board does not appear to have been used much after 1897. There is, however, no mention of this work in the 1897 diary entries. Except for the new beaded board on the wall where the exterior door was removed, these stairs retain their original fabric. (see Figure 73) Secondary Significance.

Flooring: **Pine treads and risers.**

Northeast Wall: Wall finish: Vertical random-width, beaded board (type 1).

Door(s): **Doorway with two-light transom boarded over on other side of wall.** Also see Room 111, Northeast Wall.

Window(s): None

Trim: Door casing: **Plain boards.**

Other trim: **Horizontal (type 5) beaded board batten at the transition between first and second floors.**

Southeast Wall: Wall finish: Opens up to the second floor.

Door(s): Door jamb at second riser up from first floor. Door missing.

Window(s): None

Trim: None

Southwest Wall: Wall finish: **Vertical random-width, beaded board (type 1).**

Door(s): None

Window(s): None

Trim: **Horizontal (type 5) beaded board batten at the transition between first and second floors.**

Northwest Wall: Wall finish: Replacement beaded board.

Door(s): None

Window(s): None

Trim: Colonial Trim (Type 3) at ceiling.

Ceiling: **Plaster on wood lath at second floor.**

Room 110, Back Stair Down: It is not known when this stair was constructed. It appears that the steps up to the second floor were constructed at the same time as the flight down to the basement. Since there was no basement before 1897, it is reasonable to conclude that these stairs were constructed in 1897. The fact that the walls are of beaded board strongly suggests that the stairs date from within the period of interpretation since beaded board does not appear to have been used much after 1897. There is, however, no mention of this work in the 1897 diary entries. The stairway itself was disassembled and reinstalled when the concrete floor in Room B-3 was poured. Secondary Significance.

Flooring: Pine treads and risers.

Northeast Wall: Wall finish: **Vertical random-width, beaded board (type 1) extend down to the level of the first floor joist where it terminates. Below the joist, rough-sawn random-width boards extend down to the basement floor.**

Door(s): None

Window(s): None

Trim: None

Southeast Wall: Wall finish: Opens up to the first floor.

Door(s): **(1) Board door**

Window(s): None

Trim: None

Southwest Wall: Wall finish: **Vertical random-width, beaded board (type 1) extend down to the level of the first floor joist where it terminates. Below the joist, the stair is open to Room B-3.**

Door(s): None

Window(s): None

Trim: **A beveled base anchors the bottom of the board wall at the level of the first floor.**

Northwest Wall: Wall finish: Opens down to Room B-3.

Door(s): None

Window(s): None

Trim: None

Ceiling: **Stair to second floor above.**

Room 111, Kitchen: Despite Miss Barton's propensity for simple foods, as the center of food preparation for this building (which was as much a hotel as it was a residence), the kitchen would have held a central place in the household. The chimney in the south corner of this room shows two locations where stove pipes were connected. Primary Significance

Flooring: Vinyl tile over plywood sheathing. **The original random-width tongue-and-groove pine flooring is intact below.**

Northeast Wall: Wall finish: **Beaded board. The northwest section of wall, including the door, utilizes beaded board and was added after 1891. The center section of the wall utilizes beaded board. The built-in cabinet is of plain boards with (type 6) beaded board doors and (type 2) beaded board applied to the back side of the stair enclosure above a pull-out work surface.**

Door(s): (1) **(Type 5) beaded board door with single light transom** that opens into the back stair up. The door is narrower than its transom. **(1) board door with a double light transom into Room 110.**

Window(s): None

Trim: Base: Partial 1x wood base at the northwest end.

Southeast Wall: Wall finish: Center section of wall opens into the backside of the hall closet. **Southwest section is random width beaded board (type 1).**

Door(s): See room 102, Northwest wall.

Window(s): None

Trim: Base: Partial molded base.

Southwest Wall: Wall finish: **Random width board (backside of type 1 beaded board) with $\frac{3}{8}$ " x $1\frac{3}{8}$ " battens. To the northwest of the door the wall is covered**

with gypsum board. Batt insulation has been stuffed into the gaps between the boards and the gaps have been filled with joint compound and covered with the battens.

Door(s): See Room 112, Northeast Wall.

Window(s): None

Trim: Door casing: Sanitary trim with plain corner blocks.
Base: Plain base with quarter-round shoe.

Northwest Wall: Wall finish: **Random width beaded board (type 1)**

Door(s): None

Window(s): (2) Six-over-six, double-hung.

Trim: Window casing: Sanitary trim with plain corner blocks. Casing surrounds all four sides of the opening, there is no stool.
Base: Plain baseboard with quarter-round shoe.

Ceiling: **Plaster on lath.** The northwestern third of the ceiling is covered with gypsum board.

Room 112, Dining Room: The significance of the dining room in Miss Barton's mind is demonstrated by her decision to place it directly adjacent to the Red Cross offices and to link it to the offices by a large archway. Despite Miss Barton's propensity for simple food, more photos were taken of the dining room than almost any other room in the house. Primary Significance (see Figure 42)

Flooring: **Random width, tongue-and-groove pine flooring.** Sanded and refinished.

Northeast Wall: Wall surface: **Random-width vertical beaded board partition** behind reconstructed built-in cupboards.

Door(s): **(1) Four-panel door.**

Window(s): None

Trim: Replacement crown and base.

Southeast Wall: Wall surface: Replacement fabric on stud framing with two built-in corner cabinets.

Door(s): **Open archway into Center Red Cross Office** (Room 113).

Window(s): None

Trim: Door casing: **Colonial casing (type 3).**

Crown: **Colonial casing** (type 3) above cabinets only.

Southwest Wall: Wall surface: Restored painted fabric over building paper on **stud framing.**

Door(s): None

Window(s): Replacement, paired, six-over-six, double-hung.

Trim: Window casing: Replacement symmetrical trim (similar to type 1) with replacement bull's eye corner blocks (similar to type).

Replacement ogee stool trim and beaded apron.

Base: **Plain baseboard with** replacement ogee base and cap.

Northwest Wall: Wall finish: Restored painted fabric over building paper on stud framing.

Door(s): None

Window(s): (1) Six-over-six, double-hung.

Trim: Window casing: **Symmetrical trim (type 1) with bull's eye corner blocks (type).** Ogee stool trim and beaded apron.

Base: Plain replacement baseboard with **cyma reversa base and ogee cap.**

Ceiling: Replacement painted fabric over building paper.

Room 113, Red Cross Office: This is one of the two offices from which the business of the Red Cross was carried out during the years that the house was used as the headquarters of the organization. A patch in the ceiling and floor above indicates that a stove pipe originally penetrated the ceiling to a drum in Room 212. The drum in the room above was later abandoned and the stove pipe was routed directly to the chimney in the north corner of this room. Primary Significance (see Figures 43-44)

Flooring: **Random width, tongue-and-groove pine flooring.** Sanded and refinished.

- Northeast Wall: Wall finish: **Random-width vertical beaded board partition with built-in cupboards.**
- Door(s): See Room 102, Southwest wall. Closets have wood framed doors covered with painted fabric.
- Window(s): None
- Trim: Base: **Cyma reversa shoe at cupboards.**
Crown: **Cyma recta crown molding above closets and doorway.**
- Southeast Wall: Wall finish: **Random-width vertical beaded boards on stud framing. Archway into Corner Red Cross Office (Room 114)**
- Door(s): None
- Window(s): (1) Six-over-six, double hung.
- Trim: Door casing: **Symmetrical (type 1).** No casing at head.
Window casing: **Symmetrical trim (type 1) with bull's-eye corner blocks (type). Ogee stool trim with beaded apron.**
Base: **1/2" thick plain baseboard with cyma reversa shoe.**
Crown: **Ovolo.**
- Southwest Wall: Wall finish: **Restored painted fabric over building paper on stud framing.**
- Door(s): None
- Window(s): Paired, six-over-six, double-hung.
- Trim: Window casing: **Symmetrical trim (type 1) with bull's-eye corner blocks (type 1).** Ogee stool trim with beaded apron.
Base: **Plain baseboard with cyma reversa shoe and ogee cap.**
- Northwest Wall: Wall finish: **Random-width vertical beaded boards on stud framing. Archway into Dining Room (Room 112)**
- Door(s): None
- Window(s): (1) Six-over-six, double hung.
- Trim: Door casing: **Symmetrical (type 1), with no trim at the head.**

Window casing: **Symmetrical trim (type 1) with bull's-eye corner blocks (type 1). Ogee stool trim with beaded apron.**
Base: **1/2" thick plain baseboard with cyma reversa shoe.**
Crown: **Ovolo.**

Ceiling: Replacement painted fabric over building paper.

Room 114, Red Cross Office: This is one of the two offices from which the business of the Red Cross was carried out during the years that the house was used as the headquarters of the organization. A stove pipe originally connected to the chimney that is located in the center of the northeast wall of this room. Primary Significance (see Figures 45-46)

Flooring: **Random width, tongue-and-groove pine flooring.** Sanded and refinished.

Northeast Wall: Wall finish: **Beaded board (type 1)** partition with restored built-in cabinets across full width of room.

Door(s): Cabinet doors are wood frame with painted fabric.

Window(s): None

Trim: Crown: **Crown molding at ceiling across cabinets.**
Base: **Cyma reversa shoe.**

Southeast Wall: Wall finish: Restored painted fabric over building paper on stud framing.

Door(s): None

Window(s): (3) Six-over-six, double-hung.

Trim: Window casing: **Symmetrical trim (type 1) with bull's-eye corner blocks (type 1). Ogee stool trim with beaded apron.**
Base: **Plain baseboard with replacement cyma reversa shoe and ogee cap.**

Southwest Wall: Wall surface: Restored painted fabric over building paper on stud framing.

Door(s): None

Window(s): Paired, six-over-six, double-hung.

Trim: Window casing: **Symmetrical trim (type 1) with bull's eye corner blocks (type 1). Ogee stool trim and beaded apron.**
Base: **Plain baseboard with cyma reversa shoe and cap.**

Northwest Wall: Wall finish: **Replacement fabric on stud framing. Archway into Center Red Cross Office (Room 113)**

Door(s): See Room 102, Southeast wall.

Window(s): None

Trim: Door casing: **Symmetrical trim (type 1) at archway and Hall door.** Archway has no trim at the head. **The door to the Hall (Room 102) has bull's-eye corner blocks (type 1)**
Base: **Plain baseboard with cyma reversa shoe and cap.**

Ceiling: Replacement painted fabric over building paper.

Room 115, Office: This is one of the small rooms that flank the central hall on both the first and second floors. There is little documentation of the use or appearance of these rooms. Some were used for storage, some as bedrooms, and uses appear to have changed over time. While these rooms typically retain a fair amount of original fabric there is not enough information available for their proper interpretation. Physical evidence indicates that a stove was connected to the chimney in the southwest wall of this room. Not Significant

Flooring: **Random width, tongue-and-groove pine flooring.**

Northeast Wall: Wall finish: **Vertical board partition** covered with fiberboard. At the northwest end of wall at the closet door the board partition stops and the fiberboard has no backing.

Door(s): **(1) Wood frame door with painted muslin covering at the closet.**

Window(s): None

Trim: Door casing: **Sanitary trim (type 4).**
Base: **Sanitary baseboard with ovolo or quarter-round shoes.**
Crown: **Cove**

Southeast Wall: Wall finish: **Plaster on wood lath over stud framing.**

Door(s): None

Window(s): (1) Six-over-six, double-hung.

Trim: Window casing: Sanitary surround (type 4) with mitered corners.
Plain apron.

Base: Sanitary baseboard with ogee shoe.

Crown: Cove

Southwest Wall: Wall finish: **Back side of beaded board partition (type 1)**

Door(s): None

Window(s): None

Trim: Base: Sanitary base with ogee shoe to the southeast of the chimney. Plain board beyond chimney.

Crown: Cove molding at ceiling to the southeast of the chimney.

Northwest Wall: Wall finish: **Plaster on wood lath on stud framing.**

Door(s): See Room 102, Southeast wall.

Window(s): None

Trim: Door casing: Sanitary trim with mitered corners.

Base: Sanitary base with ogee shoe.

Crown: Cove molding at ceiling.

Ceiling: **Plaster on wood lath.**

Room 116, Office: This is one of the small rooms that flank the central hall on both the first and second floors. There is little documentation of the use or appearance of these rooms. Some were used for storage, some a bedrooms, and uses appear to have changed over time. While this room retains a fair amount of original fabric there is not enough information available for its proper interpretation. Not Significant

Flooring: **Random width, tongue-and-groove pine flooring.**

Northeast Wall: **Wall finish: Board and batten partition with 1½" x 12" boards and 1¾" x ¾" battens.** Passage into Room 117.

Door(s): None

Window(s): Archway into Room 117.

Trim: Door casing: Astragal trim.
Base: 1¾" x ¾" batten.

Southeast Wall: Wall finish: **Plaster on wood lath on stud framing.**

Door(s): None

Window(s): (1) Six-over-six, double-hung sash.

Trim: Window casing: Symmetrical trim with bull's-eye corner blocks.
Beaded apron.
Base: Plain baseboard with ogee shoe.

Southwest Wall: Wall finish: **Vertical beaded board partition** covered with fiberboard.

Door(s): **(1) Two panel, with infilled transom.** This door opens into a later stairway down to the basement.

Window(s): None

Trim: Door casing: Sanitary trim with mitered corners. Trim is flush with face of fiberboard.
Base: Ogee cap only.

Northwest Wall: Wall finish: **Plaster on wood lath** (or gypsum board?) **over stud framing.**

Door(s): See Room 102, Southeast wall.

Window(s): None

Trim: Door casing: "Colonial" trim (type 3) with mitered corners.
Base: Plain baseboard with beveled shoe. To the southwest of the door an ogee base cap is buried in the wall.

Ceiling: **Plaster on wood lath** (or gypsum board?).

Room 117, Storage: This is one of the small rooms that flanks the central hall on both the first and second floors. There is little documentation of the use or appearance of these rooms. Some were used for storage, some a bedrooms, and uses appear to have changed over time. While this room typically retains a fair amount of original fabric there is not enough information available for its proper interpretation. Not Significant

- Flooring: Plywood overlay with vinyl tiles. **The random width, tongue-and-groove pine flooring is probably intact below.**
- Northeast Wall: Wall finish: **Vertical board partition.** The southeast half is covered with fiberboard.
- Door(s): **Two, four-panel doors.**
- Window(s): None
- Trim: Door casing: Sanitary trim (type 4) with mitered corners.
Base: Beveled shoe to anchor base of board partition.
- Southeast Wall: Wall finish: **Plaster on wood lath.**
- Door(s): None
- Window(s): (1) Six-over-six, double-hung.
- Trim: Window casing: Symmetrical trim (type 1) with bull's-eye corner blocks (type 1). Beaded apron.
Base: Not visible behind electric baseboard heater.
- Southwest Wall: Wall finish: **Board and batten partition with 1½" x 12" boards and 1¾" x ¾" battens.** A 1 x 2½ inch board runs horizontally across the wall from the doorway to the northwest wall at 4'-2" AFF. Passage into Room 116.
- Door(s): None
- Window(s): None
- Trim: Base: **Beveled shoe to anchor base of board partition.**
- Northwest Wall: Wall finish: **Plaster on wood lath over stud framing** with archways opening into two closets.
- Door(s): None
- Window(s): None
- Trim: Door casing: 1 x 2 trim.
Base: Plain baseboard to left of doors only.

Ceiling: Plaster on wood lath (or gypsum wall board?). A length of sanitary trim (type 4) runs across the ceiling marking the location of an apartment era partition.

Room 118, Rear Parlor: Linked with Room 119 through an archway, this room was one of the two the formal rooms in the house. This is the only room in the house that contains a fireplace. A leak in the bathroom above this room necessitated the replacement of damage plaster with new gypsum board. Primary Significance(see Figures 47-49)

Flooring: Random width, tongue-and-groove pine flooring.

Northeast Wall: Wall finish: Plaster on wood lath over stud framing with a gypsum board chase built out to the southeast side of the archway to the Front Parlor (Room 119).

Door(s): None

Window(s): None

Trim: Door casing: Victorian trim (type 2).
Base: Plain baseboard with cyma reversa shoe.

Southeast Wall: Wall finish: Gypsum wall board with chase furred out at northeast end.

Door(s): None

Window(s): Paired, six-over-six, double-hung.

Trim: Window casing: Symmetrical trim (type 1) with bull's-eye corner blocks (type 1). Ogee stool trim with a plain apron.
Base: Plain with reversa shoe.

Southwest Wall: Wall finish: Board partition covered with fiberboard.

Door(s): See room 117, Northeast Wall.

Window(s): None

Trim: Door casing: Symmetrical trim (type 1) on plinths with bull's-eye corner blocks (type 1).
Base: Plain base with beveled shoe.

Northwest Wall: Wall finish: Plaster on wood lath over stud framing. Plaster over brick at fireplace.

Door(s): See Room 102, Southeast Wall.

Window(s): None

Trim: Door casing: **Symmetrical trim (type 1) with bull's-eye corner block (type).**

Base: **Plain base with ogee cap and cyma reversa shoe.**

Fireplace: The brick facing on the fireplace dates from after the period of interpretation.

Ceiling: Replacement gypsum board.

Room 119, Front Parlor: Linked with Room 118 through an archway, these two rooms were the formal rooms in the house. While the physical evidence has been obscured, diary entries indicate that a stove was located in the east corner of this room and connected to the chimney that was built just outside this room adjacent to the stone pier of the front elevation. Primary Significance (see Figures 50-51)

Flooring: **Random width, tongue-and-groove pine flooring.**

Northeast Wall: Wall finish: **Plaster on wood lath over stud framing** (layered with fiberboard?).

Door(s): None

Window(s): (2) Four-over-two, double-hung.

Trim: Window casing: **Symmetrical trim (type 1) with bull's-eye corner blocks (type 1). Ogee stool trim with beaded apron.**

Base: **Plain baseboard with cyma reversa shoe.**

Southeast Wall: Wall finish: **Plaster on wood lath over stud framing** (layered with fiberboard?).

Door(s): None

Window(s): (2) Six-over-six, double-hung.

Trim: Window casing: **Symmetrical trim (type 1) with bull's-eye corner blocks (type 1). Ogee stool trim with beaded apron.**

Base: **Plain baseboard with cyma reversa shoe.**

Southwest Wall: Wall finish: **Plaster on wood lath over stud framing** (layered with fiberboard?). Archway to Rear Parlor (Room 118).

Door(s): None

Window(s): None

Trim: Door casing: **"Victorian" trim (type 2).**

Base: **Plain baseboard with cyma reversa shoe.**

Northwest Wall: Wall finish: **Plaster on wood lath over stud framing** (layered with fiberboard?).

Door(s): See Room 102, Southeast Wall and Room 101, Southeast Wall.

Window(s): None

Trim: Door casing: **Symmetrical trim (type 1) with bull's-eye corner blocks (type 1). The tops of the door casings are buried in the ceiling.**

Base: **Plain baseboard with cyma reversa shoe.**

Ceiling: **Plaster on wood lath** (layered with fiberboard?).

SECOND FLOOR:

Room 201, Library: This room must have played an important part in the household during the time that the building was in use as the Red Cross headquarters since the original stairway was relocated in order to enlarge it for use as a library. This room was altered after the period of interpretation and it is not known if the two archways on the northwest wall were installed during the period of interpretation. There is very little information available to assist in the furnishing and display of this room. A patch in the floor marks the location where the stove pipe from the vestibule once supplied the drum originally used to heat this room. (see Figures 52-54) Significant

Flooring: **Original random width, tongue-and-groove pine flooring** with patch at hole for stove pipe.

Northeast Wall: Wall finish: **Plain vertical boards between windows**

Door(s): None

Window(s): (4) Four-over-two, double-hung. The two center windows are paired.

Trim: Window Casing: **Symmetrical trim (type 1) with bull's eye corner blocks (type 1).** The baseboard is applied overlapping the skirt. The window stool and skirt run continuously across the room.
Base: **Plain baseboard with ogee shoe and beaded cap.**

Southeast Wall: Wall finish: **Plaster on wood lath over stud framing.**

Door(s): Paired four-panel doors.

Window(s): None

Trim: Door casing: Sanitary trim (type 4), mitered corners.
Base: Plain base with ovolo shoe and ogee cap.

Southwest Wall: Wall finish: **Beaded board (type 4) on stud framing.** Back of alcoves utilizes (type 7) beaded board.

Door(s): Paired two-panel doors (not original).

Window(s): None

Trim: Door casing: Sanitary trim (similar to type 4) with mitered corners.
Alcove casing: Sanitary trim with ogee stool trim and sanitary apron.
Base: Ovolo.
Crown: 3/16" quarter-round.

Northwest Wall: Wall finish: Double archway (one has been infilled with gypsum board, probably on stud framing).

Door(s): None

Window(s): None

Trim: Archway casing: Sanitary trim with a cyma recta molding at spring point of "arch".
Base: Plain base with cyma reversa cap and ogee shoe.

Ceiling: Replacement gypsum board.

Room 202, Hall, Primary Significance: The multi-story central hall is the primary organizational feature of the interior of the house. Almost every room in the building opens off of this space. It retains much of its historic fabric and has not been significantly altered. The stove pipe from the stove in the first floor of the hall (Room 102) extends up through the light well and connects to the chimney located along the northwest wall of the second floor hall (Room 202). (see Figures 55-56) **Primary Significance:**

Flooring: Random width, tongue-and-groove pine flooring.

Northeast Wall: Wall finish: Vertical beaded board (type 4). Back side of Library alcoves is beaded board (type 7).

Doors: See Room 102, Southwest Wall.

Windows: None

Trim: Door casing "Colonial" trim with mitered corners.
Base: Cyma reversa shoe.

Southeast Wall: Wall finish: Random width vertical beaded boards on stud framing.

Doors: (5) Four-panel doors. Doors to Bedrooms 214 and 215 have single glazed transoms.

Windows: (6) Low rectangular single-light windows with colored glass alternating in width in the same pattern as the third floor windows.

Trim: Door casing "Colonial" trim (type 3) with bull's-eye corner blocks (type 3).

Base: Cyma reversa shoe changes to beveled shoe between the doors to Rooms 215 and 216 and changes back to the southwest of the door to Room 214.

Crown: Molding is missing from the low ceiling at the northeast. Below and between the stairs to Room 302 ceiling trim is a quarter-round. At the low ceiling at the southwest, the quarter-round continues over a horizontal 1 x with a second quarter-round at its bottom edge.

Southwest Wall: Wall finish: Vertical beaded board partition (type 5).

Doors: Paired four-panel doors.

Windows: None

Trim: Door casing: "Colonial" trim (type 3) with bull's-eye corner blocks (type 3).
Crown: Quarter round molding.
Base: Square shoe with rounded edge.

Northwest Wall: Wall finish: Random width vertical boards on stud framing. Stairs run in either direction up to the third floor. Below the stairs, beaded board partitions are used to create closets. One of these closets has a rounded corner similar to the reconstructed closets in Clara Barton's Bedroom (Room 213).

Door(s): (2) Four-panel doors. The door to Office 207 has a single glazed transom. For residual transom, see Room 206, Southeast Wall.

Window(s): (8) Low rectangular single-light windows with colored glass alternating in width in the same pattern as the third floor windows.

Trim: Door casing: "Colonial" trim (type 3) with bull's-eye corner blocks (type 3).
Base: Beveled shoe.
Crown: Quarter round at the center section of the wall.

Ceiling: The low ceiling to the northeast is plaster on wood lath that has been papered and painted. The low ceiling to the southwest is muslin. In the center, below room 302, the ceiling is replacement gypsum board.

Room 203, Library: This space, like that of Room 203 below, almost certainly represents the space where the original stairs ran up to the second floor. As the space created to allow room for a library, this room, like room 201, would have been an important space during the period of interpretation although little information is available to assist with its furnishing and display. (see Figure 57) Significant

Flooring: Random width, tongue-and-groove pine flooring.

Northeast Wall: Wall finish: Fiberboard (probably on plaster) over brick at back wall of safe, on stud framing elsewhere. Archway into Room 302A.

Door(s): None

Window(s): None

Trim: Door casing: Sanitary trim (type 4) with rounded shoulders.
Base: Sanitary base with beveled shoe.

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- Southeast Wall: Wall finish: Open archway into the Library (Room 201)
Door(s): None
Window(s): None
Trim: Door casing: Sanitary trim (See Room 201, Northwest Wall) with rounded shoulders.
Base: Ogee shoe.
- Southwest Wall: Wall finish: Fiberboard (over plaster?) **on stud framing.**
Door(s): None
Window(s): None
Trim: Base: **Plain base with beveled shoe.**
- Northwest Wall: Wall finish: Fiberboard (over plaster on wood lath?) .
Door(s): None
Window(s): Paired, six-over-six, double-hung.
Trim: Window casing: Sanitary trim (type 4) with mitered corners.
The tops of the trim at the window heads is buried in the ceiling.
Quarter-round stool trim with plain apron.
- Ceiling: **Plaster on wood lath (?)**.

Room 203A, Kitchen: Originally linked to Room 203, and possibly to Room 201, this room would be an adjunct to the library, as well as providing access to the second floor of the vault. Its exact use is not known. Although the room currently contains many 20th century kitchen fittings and finishes, the original finishes may still be in place behind them. (see Figure 58)
Significant as a part of the library

- Flooring: **The original random width pine flooring** is intact beneath the contemporary vinyl tiles.
- Northeast Wall: Wall finish: Contemporary materials.
Door(s): None
Window(s): (1) Four-over-two, double-hung.

Trim: Window casing: Top section of Sanitary trim (type 4) remains above counter.

Southeast Wall: Wall finish: Contemporary materials with a **small section of beaded board near ceiling**. Formerly an archway opening into the Library (Room 201).

Door(s): None

Window(s): None

Trim: None

Southwest Wall: Wall finish: **Plaster on wood lath. Archway into Room 203.**

Door(s): None

Window(s): None

Trim: Door surround: Sanitary (type 4) trim with rounded shoulders.

Northwest Wall: Wall finish: **Plaster over brick**, partly obscured by contemporary materials.

Door(s): Non-historic vertical board door into safe. Both sets of safe doors are missing. The pintles for the outer door remains.

Window(s): None

Trim: None

Ceiling: Replacement gypsum board.

Room 204, Vault: This level of the vault is much the same as the lower level although this level has lost all of its original doors. While the vault is an important feature of the house, it is not necessary to exhibit or interpret both levels. If the library is put on display, it may be more convenient to exhibit this level of the vault rather than the lower level. Secondary Significance:

Flooring: **Concrete over brick vaults.**

Northeast Wall: Wall finish: **Brick**

Door(s): None

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Window(s): Four-light casement. In 1897 there was a "blind" four-over two window in this location. The exterior surround for this window remains, and the window frame and bottom sash are encased within the wall.

Trim: None

Southeast Wall: Wall finish: **Brick**

Door(s): See Room 203A, Northwest wall.

Window(s): None

Trim: None

Southwest Wall: Wall finish: **Brick**

Door(s): None

Window(s): None

Trim: None

Northwest Wall: Wall finish: **Brick**

Door(s): None

Window(s): None

Trim: None

Ceiling: **Brick vaults** sloped to match the roof.

Room 206, Office: This is one of the small rooms that flank the central hall on both the first and second floors. There is little documentation of the use or appearance of these rooms. Some were used for storage, some as bedrooms, and uses appear to have changed over time. While this room retains a fair amount of original fabric there is not enough information available for its proper interpretation. There is evidence that a stove pipe was once connected to the chimney located in the south corner of this room. (see Figure 74) Not Significant

Flooring: **Random-width, tongue-and-groove pine.**

Northeast Wall: Wall finish: **Plaster on wood lath.**

Door(s): **(1) Four-panel door with transom.**

Window(s): None

Trim: Door casing: Sanitary trim (type 4) with plain corner blocks.
Base: Sanitary baseboard.

Southeast Wall: Wall finish: **Plaster on wood lath.**

Door(s): None. **A transom remains to mark the location of a door that was infilled when the stairs to the third floor were built in 1897.**

Window(s): None

Trim: Transom casing: Colonial trim (type 3) with plain corner blocks
Base: Sanitary baseboard.

Southwest Wall: Wall finish: Fiberboard over **original vertical board partition.**

Door(s): **Board door on closet.**

Window(s): None

Trim: Door casing: Sanitary trim (type 4) with mitered corners.
Base: Sanitary baseboard

Northwest Wall: Wall finish: **Plaster on wood lath.**

Door(s): None

Window(s): **(1) Six-over-six, double-hung.**

Trim: Window casing: Symmetrical trim (type 1) with plain corner blocks. Apron not visible behind electric baseboard heater.
Base: Not visible behind electric baseboard heater.

Ceiling: **Plaster on wood lath.**

Room 207, Office: This is one of the small rooms that flank the central hall on both the first and second floors. There is little documentation of the use or appearance of these rooms. Some were used for storage, some as bedrooms, and uses appear to have changed over time. While this room retains a fair amount of original fabric there is not enough information available for its proper interpretation. (see Figures 75-77) Not Significant

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Flooring:	Random-width, tongue-and-groove pine, painted.
Northeast Wall:	Wall finish: Closet wall is a vertical random-width beaded board partition. The remainder of the wall is an original board partition covered with fiberboard. Remnants of the wall remain at the ceiling above the passage into Room 206 suggesting that the passage was created later. Door(s): Closet door is of plain boards. Window(s): None Trim: Door casing: Plain 4¼" x ¾" boards. Base: Sanitary baseboard with ovolo shoe at the closet and a beveled shoe at the partition.
Southeast Wall:	Wall finish: Plaster on wood lath. Door(s): See Room 202, southwest wall. Window(s): None Trim: Door surround: Symmetrical trim (type 3) with bull's-eye corner blocks (type 2). Base: Sanitary baseboard (type 4) with beveled shoe.
Southwest Wall:	Wall finish: 11 1/2" boards with 3/8" x 1 3/8" battens. Door(s): (1) Board and batten door. Window(s): None Trim: Base: A 1 x 2 laid flat serves as anchor for the bottom of the board partition. Crown: A 1 x 2 laid flat serves as anchor for the top of the board partition.
Northwest Wall:	Wall finish: Plaster on wood lath? Door(s): None Window(s): (1) Six-over-six, double-hung. Trim: Window casing: Sanitary trim (type 4) with mitered corners. Quarter-round stool trim and sanitary apron.

Base: Sanitary baseboard with quarter-round shoe.

Ceiling: **Plaster on wood lath.**

Room 208, Kitchen: This is one of the small rooms that flank the central hall on both the first and second floors. There is little documentation of the use or appearance of these rooms. Some were used for storage, some as bedrooms, and uses appear to have changed over time. While this room retains a fair amount of original fabric there is not enough information available for its proper interpretation. (see Figure 78) Not significant

Flooring: Sheet vinyl; the **original random-width, tongue-and groove pine flooring is probably intact underneath.**

Northeast Wall: Wall finish: 11 1/2" boards with 3/8" x 1 3/8" battens.

Door(s): See Room 207, Southwest Wall.

Window(s): None

Trim: Door casing: 3/8" x 1 3/8" battens.

Southeast Wall: Wall finish: **Plaster on wood lath.**

Door(s): None

Window(s): None

Trim: Base: Sanitary baseboard with beveled shoe.

Southwest Wall: Wall finish: Fiberboard over **original vertical beaded-board partition. Closet is constructed with a plain board partitions. The back wall of the closet has original painted fabric finish over red rosin paper on the vertical board partition.**

Door(s): (1) Board door opening into Room 209, (1) (type 6) beaded board door into the closet.

Window(s): None

Trim: Base: Quarter-round inside closet. Ogee base cap (no baseboard) outside closet.

Crown: Quarter-round at ceiling inside closet.

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Northwest Wall: Wall finish: **Plaster on wood lath.**

Door(s): None

Window(s): (1) Six-over-six, double-hung.

Trim: Window casing: Sanitary trim (type 4) with mitered corners.
Quarter round stool trim. Top of casing is buried in the ceiling.
Apron is not visible behind electric baseboard heater.
Base: Not visible behind electric baseboard heater.

Ceiling: Plaster on wood lath.

Room 209, Bathroom: This room is original to the 1897 renovation. As such it could be considered to be important to the function of the household. However, there is little evidence to support its reconstruction and it has lost all of its historic fixtures. (see Figure 59) Secondary Significance

Flooring: **Random-width, tongue-and groove pine flooring** covered with mastic.

Northeast Wall: Wall finish: **Random width vertical beaded board partition.**

Door(s): None

Window(s): None

Trim: None

Southeast Wall: Wall finish: **Section at the stair is a 3 - 1 beaded board (type 5) partition. The section at the stair hall is a random width vertical beaded board partition.**

Door(s): (1) **Four-panel door.**

Window(s): None

Trim: Door casing: "Colonial" trim (type 3) with mitered corners.

Southwest Wall: Wall finish: **Random width vertical beaded board partition.**

Door(s): None

Window(s): None

Trim: None.

Northwest Wall: Wall finish: **Random width vertical beaded board partition on stud framing.**

Door(s): None

Window(s): (1) Six-over-six, double-hung.

Trim: Window casing: Sanitary trim (type 4) mitered corners. Apron not visible behind electric baseboard heater. Top of casing is buried in ceiling.

Ceiling: **Plaster on wood lath, partially demolished.**

Room 210, Stair Hall: This room is essentially left-over space at the top of the rear stair outside the bathroom (Room 209). It retains most of its historic fabric. (see Figure 60) Not Significant

Flooring: **Random-width, tongue-and groove pine flooring.**

Northeast Wall: Wall finish: **Random width vertical beaded board partition.**

Door(s): See Room 208, Southwest Wall.

Window(s): None

Trim: Door Casing: Colonial (Type 3) with mitered corners.

Southeast Wall: Wall finish: **Plaster on wood lath.**

Door(s): See Room 202, Northwest Wall.

Window(s): None

Trim: Door casing: "Colonial" trim (type 3) with mitered corners.

Southwest Wall: Wall finish: **Random width vertical beaded board partition.**

Door(s): See Room 211, Northeast Wall.

Window(s): None

Trim: None

Northwest Wall: Wall finish: **Random width vertical beaded board partition.**

Door(s): See Room 209, Southeast Wall.

Window(s): (1) Six-over-six double-hung.

Trim: Door Casing: Colonial (Type 3) with mitered corners.

Ceiling: **Plaster on wood lath.**

Room 211, Dr. Hubbell's Bedroom: The suite of rooms on this floor along the back of the house were bedrooms reserved for the permanent Officers of the Red Cross. This room was used by Dr. Hubbell. The changes made to this room when the building was converted to apartments have been reversed and many of the original finishes remain in place. It is not clear if the archway that opens into Room 213 dates from the period of interpretation or later. The chimney in the east corner of this room originally received the flue pipe for the stove that heated this room. (see Figure 61) Primary Significance

Flooring: **Random-width, tongue-and groove pine flooring.** The floor has been painted and partially stripped.

Northeast Wall: Wall finish: **Random width vertical board partition covered with red rosin paper and muslin.** Closets are of beaded boards.

Door(s): (1) **Four panel door.** The closets have beaded board doors.

Window(s): None

Trim: Door casing: Sanitary trim (type 4) with mitered corners.
Base: Beveled base serves as anchor for board partition.

Southeast Wall: Wall finish: **Plaster on wood lath.** Archway into Room 211 (Clara Barton's Sitting Room).

Door(s): None

Window(s): None

Trim: Base: Plain baseboard with cyma reversa shoe and ogee cap except at front of chimney where the cap is a "double ogee".

Southwest Wall: Wall finish: **Plaster on wood lath.**

Door(s): None

Window(s): **Paired six-over-six, double-hung.** One sash has been altered to operate as a casement to provide access to the demolished porch that was outside these windows.

Trim: Window casing: Symmetrical trim (type 1) with bull's-eye corner blocks (type 1). Ogee stool trim with a beaded apron.
Base: Plain baseboard with ogee cap (shoe is missing).

Northwest Wall: Wall finish: **Plaster on wood lath.**

Door(s): None

Window(s): (2) Six-over-six, double-hung.

Trim: Window casing: Symmetrical trim (type 1) with bull's-eye corner blocks (type 1). Ogee stool trim with a beaded apron. Tops of casings are buried in the ceiling.
Base: Plain baseboard with ogee cap (shoe is missing).

Ceiling: **Plaster on wood lath.**

Room 212, Clara Barton's Sitting Room: The suite of rooms on this floor along the back of the house were bedrooms reserved for the permanent Officers of the Red Cross. This room was used by George Pullman up to the time he left the Red Cross in the fall of 1897. After that, the room was used as a guest bedroom, and later became Miss Barton sitting room. The archway that opens into Miss Barton's Bedroom (Room 213) probably dates from the period when this room was used as Miss Barton's sitting room. There is some documentary evidence available to support the refurbishing of this room. Originally this room was heated by a drum that was supplied by the stove in Room 113 below. Later, a stove that was exhausted through the chimney on the northwest wall of this room was installed and the hole where the had flue penetrated the floor was patched and. (see Figure 62) Primary Significance

Flooring: **Random-width, tongue-and groove pine flooring.**

Northeast Wall: Wall finish: Closets walls are of beaded board.

Door(s): See Room 202, Southwest Wall.

Window(s): None

Trim: Door casing: Casing made from two widths of triple-beaded board with corner blocks made from four pieces of 3 - 1 beaded board (type 5) mitered into a square.

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- Southeast Wall: Wall finish: **Random width beaded board (type 1) covered with fabric and multiple layers of wall paper.** Archway into Room 213 (Clara Barton's Bedroom).
- Door(s): Archway doors (if any) have been removed for restoration. Closet has a four-panel door.
- Window(s): (1) Six-over-six, double-hung.
- Trim: Door casing: "Colonial" trim (type 3) with mitered corners.
Window casing: "Colonial" trim (type 5) with mitered corners and a beaded apron.
- Southwest Wall: Wall finish: **Random width beaded board (type 1) covered with fabric and multiple layers of wall paper.**
- Door(s): None
- Window(s): Paired six-over-six, double-hung.
- Trim: Window casing: "Colonial" trim (type 5) with mitered corners and a beaded apron.
- Northwest Wall: Wall finish: **Random width beaded board (type 1). Covered with fabric and multiple layers of wall paper.** Archway into Room 211 (Dr. Hubbell's Bedroom).
- Door(s): Archway doors (if any) have been removed for restoration. Closet has a four-panel door.
- Window(s): (1) Replacement six-over-six, double-hung.
- Trim: Door casing: "Colonial" trim (type 3) at closet. Colonial trim (type 5) at archway, corner blocks have been removed.
Window casing: "Colonial" trim (type 5) with mitered corners and a beaded apron.
- Ceiling: Ceiling removed for restoration.

Room 213, Clara Barton's Bedroom: Although diary entries indicate that Miss Barton used other rooms in the house as her bedroom, this room is the room that she seems to have settled on. This room has been reconstructed to represent its appearance during the period of interpretation. There is some documentary evidence to support the refurnishing of this room. The chimney in the center of the northeast wall of this room once received the flue for the stove that heated this room.(see Figure 63)

- Flooring: **Random-width, tongue-and groove pine flooring. Refinished**
- Northeast Wall: Wall finish: Restored fabric over asbestos paper.
- Door(s): **(1) "Blind" four panel door.**
- Window(s): None
- Trim: Door casing: **"Colonial" trim (type 3) with bull's-eye corner blocks (type 3).**
Base: **Plain baseboard with ogee shoe and cap**
- Southeast Wall: Wall finish: Restored fabric over asbestos paper. Restored beaded board closets.
- Door(s): Closets have beaded board doors.
- Window(s): **(2) Six-over-six, double-hung.**
- Trim: Window casing: **"Colonial" trim (type 3) with bull's-eye corner blocks and a beaded apron.**
Base: **Plain baseboard with ogee shoe and (replacement) cap**
- Southwest Wall: Wall finish: Restored fabric over asbestos paper.
- Door(s): None
- Window(s): **Paired six-over-six, double-hung.**
- Trim: Window casing: **"Colonial" trim (type 3) with bull's-eye corner blocks(type 3) and a beaded apron.**
Base: **Plain baseboard with ogee shoe and cap.** The base cap is missing between the closet and the window.
- Northwest Wall: Wall finish: Restored fabric over asbestos paper. Archway into Room 212 (Clara Barton's Sitting Room).
- Door(s): See Room 202, Southeast Wall.

Window(s): None

Trim: Door casing: "Colonial" trim (type 3) with bull's-eye corner blocks (type 3). Casing on archway has been removed for restoration.

Base: **Plain baseboard** with (replacement) ogee shoe and cap

Ceiling: Restored fabric over asbestos paper.

Room 214, Bedroom: This is one of the small rooms that flank the central hall on both the first and second floors. There is little documentation of the use or appearance of these rooms. Some were used for storage, some as bedrooms, and uses appear to have changed over time. While this room retains some of original fabric (and more may be concealed under the fiberboard walls) there is not enough information available for its proper interpretation. (see Figures 64-65) Not Significant

Flooring: **Random-width, tongue-and groove pine flooring.**

Northeast Wall: Wall finish: Fiberboard over the **original vertical board partition.**

Door(s): **Closet has board door. A second closet that has been converted into a passageway to Room 215 has a fabric door.**

Window(s): None

Trim: Base: Plain baseboard with ogee shoe.
Crown: Ogee trim.

Southeast Wall: Wall finish: Fiberboard over **stud framing.**

Door(s): None

Window(s): (1) Six-over-six, double-hung.

Trim: Window casing: "Colonial" trim with mitered corner and beaded apron.
Base: **Plain baseboard with ogee shoe.**
Crown: Ogee trim.

Southwest Wall: Wall finish: Fiberboard over **original vertical board partition.**

Door(s): Door has been walled over. See Room 213, Northeast Wall.

Window(s): None

Trim: Base: Plain baseboard with ogee shoe.
Crown: Ogee trim.

Northwest Wall: Wall finish: Fiberboard over on stud framing.

Door(s): See Room 202, Southeast Wall.

Window(s): None

Trim: Door casing: "Colonial" trim (type 3) with mitered corners.
Base: Plain baseboard with ogee shoe.
Crown: Ogee trim.

Ceiling: Fiberboard.

Room 215, Bedroom: This is one of the small rooms that flank the central hall on both the first and second floors. There is little documentation of the use or appearance of these rooms. Some were used for storage, some as bedrooms, and uses appear to have changed over time. While this room retains a fair amount of original fabric (some of it concealed under the fiberboard all surfaces) there is not enough information available for its proper interpretation. (see Figure 66) Not Significant

Flooring: **Random-width, tongue-and groove pine flooring.**

Northeast Wall: Wall finish: Fiberboard over the **original vertical board partition.**
The back walls of the closets are also original vertical board partitions. Side walls of closets are horizontal boards.

Door(s): **(2) Wood frame doors covered with painted fabric.**

Window(s): None

Trim: Door casing: "Colonial" trim (type 3) with mitered corners.
Base: Plain baseboard with ogee shoe and cap.
Crown: Ogee trim.

Southeast Wall: Wall finish: Fiberboard on stud framing.

Door(s): None

Window(s): (2) Six-over-six, double-hung.

Trim: Window casings: Symmetrical trim (type 1) with bull's-eye blocks and beaded apron.

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Base: Plain baseboard with ogee shoe and cap.
Crown: Ogee trim.

Southwest Wall: Wall finish: Fiberboard over the **original vertical board partition**. **The back walls of the closets are also original vertical board partitions**. Side walls of closets are horizontal boards. At the south end of the wall a closet has been opened up to create a passageway to Room 214.

Door(s): **(2) Board doors** (the joints have been covered with tape).

Window(s): None

Trim: Door casing: Colonial trim (type 3) with mitered corners.
Base: Plain baseboard with ogee shoe and cap.
Crown: Ogee trim.

Northwest Wall: Wall finish: Fiberboard over **stud framing**.

Door(s): See Room 202, Southeast Wall.

Window(s): None

Trim: Door casing: "Colonial" trim (type 3) with mitered corners.
Base: Plain baseboard with ogee shoe and cap.
Crown: Ogee trim.

Ceiling: Fiberboard. **Closet ceilings are plain boards running perpendicular to the ceiling joists.**

Room 216, Closet: This is one-half of one of the small rooms that flank the central hall on both the first and second floors. There is little documentation of the use or appearance of these rooms. Some were used for storage, some as bedrooms, and uses appear to have changed over time. While this room retains some of original fabric (and some is concealed under the gypsum board walls) there is not enough information available for its proper interpretation. (see Figure 79) Not Significant

Flooring: Vinyl tile. **The random-width, tongue-and groove pine flooring is probably intact below.**

Northeast Wall: Wall finish: Gypsum board over **original vertical board partition**.

Door(s): None.

Window(s): None

Trim: None

Southeast Wall: Wall finish: Modern stud partition with passage to Room 217.

Door(s): Archway into Room 217.

Window(s): None

Trim: None

Southwest Wall: Wall finish: Gypsum board over **original vertical board partition.**

Door(s): None

Window(s): None

Trim: None?

Northwest Wall: Wall finish: **Plaster on wood lath.**

Door(s): See Room 202, Southeast Wall.

Window(s): None

Trim: Door casing: Sanitary trim (type 4) with mitered corners.

Ceiling: Plaster.

Room 217, Bathroom: This is one-half of one of the small rooms that flank the central hall on both the first and second floors. There is little documentation of the use or appearance of these rooms. Some were used for storage, some as bedrooms, and uses appear to have changed over time. This room has been converted to a bathroom concealing all of the remaining historic fabric except the ceiling. There is not enough information available for the proper interpretation of this room. (see Figure 80) Not Significant

Flooring: Sheet vinyl. **The original random-width, tongue-and groove pine flooring is probably still in place beneath.**

Northeast Wall: Wall finish: Ceramic tile and gypsum board? over **original vertical board partition.**

Door(s): See Room 218, Southwest Wall.

Window(s): None

Trim: None

Southeast Wall: Wall finish: Ceramic tile and gypsum board? over **stud framing**.

Door(s): None

Window(s): (1) Six-over six, double-hung.

Trim: Window casing: **Sanitary trim (type 4) with mitered corners**.

Southwest Wall: Wall finish: Ceramic tile and gypsum board? over **stud framing**.

Door(s): None

Window(s): None

Trim: None

Northwest Wall: Wall finish: Ceramic tile and gypsum board? over stud framing with passage to Room 116.

Door(s): Archway into Room 116.

Window(s): None

Trim: None

Ceiling: **Plaster over wood lath.**

Room 218, Meeting Room: Diary entries indicate that this room was primarily used as a guest bedroom. Access would most likely have been through the library rather than through Room 216. This room has lost most of its historic finishes. Although the physical evidence has been lost or obscured by later finishes, diary entries suggest that a stove in this room was once connected to the chimney outside the east corner of the room. (see Figures 67-68)

Flooring: **Random-width, tongue-and groove pine flooring.**

Northeast Wall: Wall finish: Gypsum board over stud framing.

Door(s): None

Window(s): (2) Four-over-two, double-hung.

Trim: Window casing: Symmetrical trim (type 1) with bull's-eye corner blocks. Ogee stool trim with beaded apron.
Base: Plain baseboard (replacement) with robust quarter-round shoe and (replacement) quarter-round cap.

Southeast Wall: Wall finish: Gypsum board over stud framing.

Door(s): None

Window(s): (2) Six-over-six, double-hung.

Trim: Window casing: Symmetrical trim (type 1) with bull's-eye corner blocks. Ogee stool trim with beaded apron.
Base: Plain baseboard (replacement?) with robust quarter-round shoe and (replacement) quarter-round cap.

Southwest Wall: Wall finish: **Beaded board partition (type 4).**

Door(s): **(3) Four-panel.**

Window(s): None

Trim: Door casing: **Symmetrical trim (type 6).** Trim at head runs continuously from door to door across the wall.
Base: Plain baseboard with ogee cap.
Crown: Quarter-round at ceiling.

Northwest Wall: Wall finish: Gypsum board over stud framing.

Door(s): See Room 201, southeast wall.

Window(s): None

Trim: Door casing: **Symmetrical trim (type 1) on plinth with bull's-eye corner blocks (type 2).**
Base: Plain (replacement) baseboard with **robust quarter-round shoe** and (replacement) quarter-round cap.

Ceiling: Gypsum board.

THIRD FLOOR:

Room 301, Bedroom: This third floor room appears to have originally been a storage loft. In 1897 the floor area was increased to allow for the creation of two closets and a landing for the stairway. It may have, at times, been used as a bedroom. A hole in the southeast wall of this room indicates that a stove pipe was once connected to the chimney outside one of the closets in this room, however, there is no evidence in the chimney itself indicating where a flue pipe could have been connected. (see Figure 69) Significant

Flooring: **5½" tongue-and groove pine flooring** with some replacement flooring at the front of the room.

Northeast Wall: Wall finish: **Beaded board (type 3) on stud framing.**

Door(s): None

Window(s): Paired "nine-over-two" windows. The top and bottom sash of both windows are constructed as a single unit and the northwest window is hinged to operate as a casement. This is to present the appearance of a double-hung sash while providing access out to the third floor balcony. The sills of these windows are at floor level. The nine-light top sash of these windows are glazed with red glass, with translucent glass in the corners to create a red cross in each top sash.

The pair of nine-over-two windows are flanked on each side by a single fixed four-light sash.

Trim: Window casing: **The two center windows have "colonial" trim (type 3) with mitered corners.** The four-light sash have replacement "colonial" trim with ogee stool trim and beaded aprons.

Base: **Plain base laid flat on floor with an ogee cap on top.**

Southeast Wall: Wall finish: **Beaded board (type 5) on stud framing.**

Door(s): **(1) Four-panel door to closet**

Window(s): (5) Alternating windows, (3) six-over-six and (2) four-over-four, double-hung.

Trim: Door casing: **Plain board with bead at inside and mitered corners.**

Window casing: **(Type 5) beaded board installed in the same plane as the wall finish.** Beaded board runs horizontally at the

head, the sill, and between the sill and floor. Mullions are covered with vertically oriented beaded board.

Base: **Ogee base cap used as base.**

Southwest Wall: Wall finish: **Beaded board partition (type 5). Closets are also constructed of (type 5) beaded board.**

Door(s): **Paired three-panel doors with top panel glazed.**

Window(s): None

Trim: Door casing: **Inner archway is framed with (2) strips of triple beaded board. The doorway has a plain board surround.**

Base: **Ogee base cap used as base.**

Northwest Wall: Wall finish: **Beaded board (type 5) on stud framing.**

Door(s): **(1) Four-panel door to closet.**

Window(s): **(5) Alternating windows, (3) six-over-six and (2) four-over-four, double-hung.**

Trim: Door casing: **Plain board with bead at inside and mitered corners.**

Window casing: **(Type 5) beaded board installed in the same plane as the wall finish. Beaded board runs horizontally at the head, the sill, and between the sill and floor. Mullions are covered with vertically oriented beaded board.**

Base: **Ogee base cap used as base.**

Ceiling: **Muslin.**

Room 302, Landing: This landing was created in 1897 when Room 301 was expanded. It provides access to Room 301 and to Room 303. This landing is visible from the first floor, up through the light well in the center hall. (see Figure 69) Significant

Flooring: **3½" tongue-and groove pine flooring.** A joint in the floor boards indicates that the floor was extended toward the rear of the house to create space for a landing at the top of the stairs up from the center hall (Room 202).

Northeast Wall: Wall finish: **Beaded board partition (type 8b).**

Door(s): See Room 301, Southwest Wall.

Window(s): None

Trim: Door casing: **Colonial Trim (type 3) with Bull's-eye corner blocks (type 3).**

Base: **Beveled shoe to anchor base of board partition.**

Crown: **Quarter-round.**

Southeast Wall: Wall finish: **Beaded board (type 5) on stud framing.**

Door(s): None

Window(s): (4) Alternating windows, (2) six light fixed and (2) four light pivot sash.

Trim: Window casing: **(Type 5) beaded board installed in the same plane as the wall finish.** Beaded board runs horizontally at the head, the sill, and between the sill and floor. Mullions are covered with vertically oriented beaded board.

Crown: **Quarter-round.**

Southwest Wall: Wall finish: **Beaded board partition (type 5).**

Door(s): See room 303, Northeast wall.

Window(s): None

Trim: Door casing: **(Type 5) beaded board surround.**

Crown: **Quarter-round at ceiling.**

Balustrade: **Balustrade at stair and balcony to match main stair (Room 107).**

Northwest Wall: Wall finish: **Beaded board (type 5) on stud framing.**

Door(s): None

Window(s): (4) Alternating windows, (2) six light fixed and (2) four light pivot sash.

Trim: Window casing: **(Type 5) beaded board installed in the same plane as the wall finish.** Beaded board runs horizontally at the head, the sill, and between the sill and floor. Mullions are covered with vertically oriented beaded board.

Base: **Ogee shoe to top of stairway.**

Crown: **Quarter-round.**

Ceiling: **Muslin** covered with paper.

Room 303, Bedroom: When the building was constructed in 1891, room 303 was most likely a loft platform for storage. Diary entries for 1897 discuss the difficulty of finishing off this space to create a room. It accessed from either of the third floor landings. The hole for a stove pipe into the chimney in the center of the northwest wall of this room has been plugged. (see Figures 70-71) Significant

Flooring: **5½" tongue-and groove pine flooring.**

Northeast Wall: Wall finish: **Beaded board partition (type 5).**

Door(s): **Beaded board to stairs. Paired two-panel access door to "balcony".**

Window(s): None

Trim: Base: **Ogee shoe**

Crown: **Half-round at transition to fabric ceiling.**

Southeast Wall: Wall finish: **Beaded board (type 5) on stud framing.**

Door(s): None

Window(s): (3) Alternating windows, (2) six-over-six and (1) four-over-four double-hung sash.

Trim: Window casing: **(Type 5) beaded board wall with a strip of beaded board running horizontally at the head.** Mullions are covered with vertically oriented beaded board.

Base: **Ogee shoe.**

Crown: **Half-round at transition to fabric ceiling.**

Southwest Wall: Wall finish: **Beaded board partition (type 5).**

Door(s): **Beaded board to stairs. Paired two-panel access door to "balcony".**

Window(s): None

Trim: Base: **Ogee shoe**

Crown: **Half-round at transition to fabric ceiling.**

- Northwest Wall: Wall finish: **Beaded board (type 5) on stud framing.**
- Door(s): None
- Window(s): (3) Alternating windows, (2) six-over-six and (1) four-over-four double-hung sash.
- Trim: Window casing: **(Type 5) beaded board wall with a strip of beaded board running horizontally at the head.** Mullions are covered with vertically oriented beaded board.
Base: **Ogee shoe.**
Crown: **Half-round at transition to fabric ceiling.**
- Ceiling: **Muslin.** The support for the flag pole that stands above the roof of this room projects down through the ceiling at the peak of the roof.
- Room 304, Landing:** This landing was created in 1897 when Room 305 was expanded. It provides access both to Room 305 and to Room 303. This landing is visible from the first floor, up through the light well in the center hall. (see Figure 72) Significant
- Flooring: **3½" tongue-and groove pine flooring.** A joint in the floor boards indicates that the floor was extended toward the front of the house to create space for a landing at the top of the stairs up from the center hall (Room 202).
- Northeast Wall: Wall finish: **Beaded board partition (type 5).**
- Door(s): See room 303, Southwest Wall.
- Window(s): None
- Trim: Door casing: **(Type 5) beaded board surround.**
Crown: **Quarter-round at ceiling.**
Balustrade: **Balustrade at stair and balcony to match main stair (Room 107).**
- Southeast Wall: Wall finish: **Beaded board (type 5) on stud framing.**
- Door(s): None
- Window(s): (4) Alternating windows, (2) six light fixed and (2) four light pivot sash.

Trim: Window casing: (Type 5) beaded board installed in the same plane as the wall finish. Beaded board runs horizontally at the head and the sill with a plain board running horizontally between the sill and floor. Mullions are covered with vertically oriented beaded board.

Crown: Quarter-round

Southwest Wall: Wall finish: Beaded board partition (type 8b). A small shelf is built into the wall the near the opening to the stairs.

Door(s): See Room 305, Northeast Wall.

Window(s): None

Trim: Door casing: Colonial Trim (type 3) with Bull's-eye corner blocks (type 3).

Base: Beveled shoe to anchor base of board partition.

Crown: Quarter-round.

Northwest Wall: Wall finish: Beaded board (type 5) on stud framing.

Door(s): None

Window(s): (4) Alternating windows, (2) six light fixed and (2) four light pivot sash.

Trim: Window casing: (Type 5) beaded board installed in the same plane as the wall finish. Beaded board runs horizontally at the head and the sill with a plain board running horizontally between the sill and floor. Mullions are covered with vertically oriented beaded board.

Base: Ogee shoe to top of stairway.

Crown: Quarter-round.

Ceiling: Muslin covered with paper.

Room 305, Store Room: This third floor room appears to have originally been a storage loft similar to Room 301. In 1897 the floor area was increased to allow for the creation of two closets and a landing for the stairway. It may have, at times, been used by Miss Barton as a bedroom. Although a chimney runs up along one wall of this room there is no evidence that a stove was ever connected to it. (see Figure 72) Significant

Flooring: Random-width, tongue-and groove pine flooring.

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- Northeast Wall: Wall finish: **Beaded board partition (type 5). Closets are also constructed of (type 5) beaded board.**
- Door(s): **Paired three-panel doors with top panel glazed.** Decorative scenes, probably dating from the 1930s, have been adhered to the glass in these doors to simulate stained glass.
- Window(s): None
- Trim: Door casing: **Inner archway is framed with (2) strips of triple beaded board. The doorway has a plain board surround.**
Base: **Ogee base cap used as base.**
- Southeast Wall: Wall finish: **Beaded board (type 5) on stud framing.**
- Door(s): **Four-panel door to closet**
- Window(s): (5) Alternating windows, (3) six-over-six and (2) four-over-four, double-hung.
- Trim: Door casing: **Plain board with bead at inside and mitered corners.**
Window casing: **(Type 5) beaded board installed in the same plane as the wall finish. Beaded board runs horizontally at the head, the sill, and between the sill and floor. Mullions are covered with vertically oriented beaded board.**
Base: **Ogee base cap used as base.**
- Southwest Wall: Wall finish: **Beaded board (type 5) on stud framing.**
- Door(s): **(1) Four-panel.**
- Window(s): **Paired six-over-six, double-hung.**
- Trim: Door Casing: **(Type 5) beaded board with mitered corners.**
Window casing: **(Type 5) beaded board with mitered corners.**
Base: **Ogee cap.**
- Northwest Wall: Wall finish: **Beaded board (type 5) on stud framing.**
- Door(s): **Four-panel door to closet.**
- Window(s): (4) Alternating windows, (2) six-over-six and (2) four-over-four, double-hung. The chimney at the center of this wall occupies the space originally occupied by a third six-over-six window.

Trim: Door casing: **Plain board with bead at inside and mitered corners.**

Window casing: **(Type 5) beaded board installed in the same plane as the wall finish. Beaded board runs horizontally at the head, the sill, and between the sill and floor. Mullions are covered with vertically oriented beaded board.**

Base: **Ogee base cap used as base.**

Ceiling:

Muslin.

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d. Condition Survey

Exterior:

Foundation: Except for the front elevation, where the foundation is a continuous uncoursed rubble stone wall, the foundation consists of irregularly sized and spaced uncoursed rubble stone piers (see Figure 81).

Originally, the house was built over an unenclosed crawl space, the floor of which followed the slope of the site. Physical evidence suggests that this original foundation extended approximately 1 to 1½ feet below grade.

In 1897 when the crawlspace was excavated to create a basement, the portions of the foundation at the uphill, or front, end of the building were in danger of being undermined by the excavation. It appears that two different techniques were used at that time to prevent the foundations from being undermined.

Along the northwest side, a change in the character of the stonework at about the mid-point of the piers suggests that they were extended downward to the floor of the newly excavated basement (see Figure 82). Along the front and the southeast sides, rather than excavate right up to the foundation wall and extend the stonework of the foundation downward, the excavation was stopped before it reached the foundation. Along the front, the excavation stopped as much as eight feet back from the inside face of the foundation wall (see Figure 83). Along the southeast side, the excavation approached to within a few feet of the piers.

Halting the excavation before it reached the foundation walls appears to be the subject of a March 31, 1897 diary entry where it was recorded that "Good progress is being made in excavating the cellar though McDowell says the cubs will not work unless continuously packed." Given the context and the physical evidence, it is likely that "cubs" should really read "curbs" and that this refers to the unexcavated areas adjacent to the foundations. Loose earth would be vulnerable to collapse, but if the dirt was "continuously packed" it could be more likely to hold together and support the foundation loads.

The current foundation conditions vary from wall to wall. Concern for the stability of the foundation resulted in the pouring of concrete buttressing in the 1970s at the same time that the first floor structure was reinforced. The front elevation with its wide earth curb remains mostly unexcavated and in its original condition. The foundation of the vault, which appears to have been originally built deeper than that of the house itself, has been given a partial concrete footing (see Figure 84), as have most of the piers on the front half of the northwest elevation (they were not completely underpinned). The pier adjacent to the vault was left in its original condition with the bottom of the stone work resting on the soil just above the level of earthen basement floor (see Figure 85).

Along the front half of the southeast elevation, where the excavation approached within a few feet of the foundation wall, a massive concrete curb has been poured, encasing the earthen

curb (see Figure 86). Historically there has been a problem with water running into the basement along this elevation. Measures such as laying brick paving along the exterior of the wall and channeling roof run-off away from the foundation have been instituted to mitigate this problem.

At the rear of the building, the grade was actually raised when the basement was excavated. The Red Cross Diary entry for March 24, 1897 states, "the laborers have been put to digging in the cellar. The cellar at the back of the house is ten feet high; at the front two. We desire to have a uniform height of 6 1/2 feet." To achieve this uniform height, the grade at the rear of the house was raised approximately 3 1/2 feet. If the foundation piers at the rear were originally constructed 12 to 18 inches below grade like the piers of the side walls, they would now be buried as much as five feet below grade, hence, reinforcing or underpinning these piers has not been a concern.

There is no evidence, either current or historic, that the building's foundations have moved. The piers are typically battered slightly on both their inside and outside faces, and none show evidence of leaning either into or away from the building. Based on the slope of the first and second floors, settlement appears to have primarily been confined to the two interior beam lines.

Framing: As far as can be determined without destructive investigation, the framing of the exterior walls is in good condition. Some deteriorated framing members were uncovered during restoration work, especially in Room 213 (Clara Barton's Bedroom) (see Figure 87). This deterioration was associated with a roof leak, and the deteriorated fabric was replaced in the course of the restoration and reconstruction work.

The header above the windows on the northwest side of the third floor front bedroom (Room 301) is sagging considerably (see Figure 88). Since there is no indication of settlement in the floor or wall structures below, this appears to be a localized failure.

Sheathing: The house is sheathed primarily with vertical pine boards (see Figure 89). In the course of restoration work, some badly deteriorated sheathing was discovered, mostly in the second floor walls. Like the deteriorated framing, the deterioration was associated with a roof leak and the sheathing was replaced.

Siding: German siding of different sizes and exposures has been used around the exterior of the house. The existing siding varies in its exposure (4 1/2" to 6 1/4") and its undercuts range from 3/4" to 1 3/4" (see Figures 90-93). Some of the siding has already been replaced, either because of weathering or because of insect damage. New siding has also been installed in areas where non-historic alterations have been reversed (see Figure 94). The remaining historic siding is generally in good shape. The paint on much of the house is deteriorated and badly mildewed (see Figure 95).

Where siding is in close proximity to the roof, especially on the clerestory walls, and on the second floor of the front elevation, deterioration is accelerated. Here, some siding boards are split and some have become punky, especially where the end-grain is exposed (see Figure 96).

At the front elevation of the house, the first floor siding is sheltered under the porch and protected from the weather, however, this paint is peeling. This indicates that either the surface was not well prepared prior to repainting, or that water is getting into the wall from above.

Windows: Because of deterioration, many of the windows in the Clara Barton House have already been replaced. The existing windows appear to be in generally good condition with the exception that many are painted shut.

Trim and detailing: Like the windows and siding, some of the exterior detailing on the house has already required replacement. Roof leaks that have recently been repaired, were allowing water to penetrate the roof near the eaves of the two side roofs. This resulted in areas of peeling paint on several sections of the soffit and water staining on the inside face of perimeter walls (see Figure 97). In one section of the soffit on the southeast wall, the soffit and fascia had rotted through (see Figure 98).

Front Porch: The front porch with its wood columns and balustrade is an inherently high maintenance structure. This, coupled with the design problems associated with having the roof at the level of the second floor window sills, makes for ongoing maintenance demands. The juncture of the porch roof and the front elevation lacks any kind of flashing other than sealant. Window sills and trim are weathered and deteriorating, and sections of siding have required replacement (see Figures 99-100).

The porch roof deck is covered with granular surfaced modified bitumen roofing. Although this roofing was installed in September, 1994 it appears to be in poor condition and the porch structure below is showing evidence of water penetration (see Figure 101).

The bases of the porch columns are beginning to deteriorate where they rest on the concrete porch slab (see Figure 102).

Metal Roofing: The standing seam and flat seam metal roofing is relatively new and in generally good condition. The complexity of some of the roofing details provides the opportunity for flaws that will permit the infiltration of water. Some minor problems were noted, including:

- On the back side of the false gable at the front of the building some soldered seams were beginning to crack.
- Where metal roofing wraps around the back side of the front gable cornice molding, the end grain of the molding is exposed to the weather and is getting punky (see Figure 103).

- On the front side of the parapets that conceal the shed roofs, the flashing is turned up 2½" from the horizontal and sealed at the top with sealant. The sealant here is failing and will allow water to get in behind the flashing (see Figure 104).
- On the central hip roof, the conjunction of the hip seam and two pan seams does not appear to have been well sealed and may leak (see Figure 105).
- The sealant at the flashing on several of the chimneys is failing (see Figure 106).

There was a major problem with the new metal roofing at the junction between the standing seam pans and flat metal roofing at the diverters that direct runoff to the downspouts. Approximately three feet from the eave of each roof the standing seam roofing terminates. Sections of flat metal roofing were laid under the standing seam roofing and the joint between them was soldered. As the flat metal roofing ran down to the eave, it was wrapped up and over 2 x 4 members that were laid along the roof edge and arranged to catch the runoff and divert it to the downspouts. On the downhill side of the diverters, the flat metal roofing runs to the edge of the roof and wraps down over the face of the roof deck.

Where the sections of the flat metal roofing were pieced, the joints were soldered with no provision for expansion. As a result, many of the soldered joints had failed, allowing water to penetrate into the soffits (see Figures 107-109). This problem was remedied in the fall of 1996 when a layer of liquid applied membrane roofing was applied over the diverters and the flat metal roofing.

Over the years, many of the roof framing members have deflected, including the ridges of several of the gabled sections and all of the rafters in the shed roofs. The deflection is particularly noticeable in the shed roofs where it has resulted in a decrease in the roof slope near the eave to as little as 1½ in 12 (see Figure 110).

While the decrease in roof slope may complicate the problems with the roof drainage, the deflection does not appear to represent any structural problems.

Interior:

Generally, the interior of the building is good condition with few areas showing any signs of deterioration other than normal wear and tear. Exceptions to this include two areas where there have been active leaks.

Through the winter of 1996-97, a leak could be found at the outside wall of Room 215 between the two windows (see Figure 111). A section of the ceiling and a large section of the wall here show water stains from this leak. This cause of this condition was corrected when the rooftop diverters were repaired.

Evidence of a second leak was present in the ceiling of the Library (Room 201). This leak developed in the early summer of 1996 and was associated with the sill of the third floor windows that open out onto the third floor balcony.

A problem of a different nature is the pervasive odor of mildew noticeable throughout the house. This is not a new problem for we know that Miss Barton had part of basement ceiling plastered in an attempt to keep the odor out of the first floor parlor rooms. The primary cause of this problem can be traced to excessive humidity in the basement. More than half of the basement floor remains exposed dirt and this undoubtedly accounts for much of the moisture.

The exposed earth flooring has been covered with plastic sheeting to act as a vapor barrier. The need for a good vapor barrier is demonstrated by the amount of moisture that has condensed on the underside of the plastic. However, as a solution, it is not adequate.

The house has a history of insect problems and much of the front facade has had to be replaced because of damage from termites. The house has been treated for insects and no evidence (such as frass) was noted in the survey of the building. Some damage from the earlier infestation remains (see Figure 114) in the flooring of the Front Parlor (room 119) and the Meeting Room (Room 218).

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Figure 39: View looking northeast in the Vestibule (room 101) showing the front doors, beaded board walls, door casing, base trim and crown molding.



Figure 40: View looking northeast from the center Red Cross Office (room 114) through the hall (room 102) to the front of the house. Notice the board and batten walls of the trunk closets that line both sides of the hall.



Figure 41: View looking up at the ceiling of the second floor of the vault (room 204) showing the bottom flange of the iron beam that supports the two brick arches that form the ceiling of of the vault. Also visible are the two iron rods, running perpendicular to the beam that prevent the arches from spreading.



Figure 42: View from room 113 into the restored and refurnished dining room (room 112).



Figure 43: General view of the restored and refurnished center Red Cross Office (room 113) looking to the east.



Figure 44: General view of the restored and refurnished center Red Cross Office (room 113) looking to the southwest. The rear wall has a restored muslin finish.



Figure 45 *General view of the restored and refurnished corner Red Cross Office (room 114) looking to the southwest showing a restored muslin finish on a perimeter stud wall.*



Figure 46: View, looking east, in the corner Red Cross Office (room 114) after restoration, showing how the room has been furnished for interpretation. The Closet doors visible at the back of the photo are made from wood frames covered with painted muslin.



Figure 47: General view of the refurnished rear parlor (room 118) looking to the southwest. The walls and ceiling remain covered with fiberboard.



Figure 48: General view of the refurnished rear parlor (room 118) looking to the east. The walls and ceiling remain covered with fiberboard. The area in the corner that has been boxed-out is a plumbing chase constructed by the NPS to conceal pipes that were originally exposed.



Figure 49: View of the fireplace in the rear parlor (room 118). This fireplace was originally covered with blue and white ceramic tile. The tile was replaced with brick when the building was converted to apartments.



Figure 50: General view of the refurnished front parlor (room 119) looking to the west. The walls and ceiling remain covered with fiberboard.



Figure 51: General view of the refurnished front parlor (room 119) looking to the south. The walls and ceiling remain covered with fiberboard.



Figure 52: View looking to the southwest in the library (room 201) showing the double leaf doors that open into the hall (room 202) and one of the two the recessed alcoves in that wall.



Figure 53: View looking to the north in the library (room 201). The archway that opens into room 103 is partially visible on the left. To the right, behind the cabinets is the archway that was enclosed to make a room for an apartment kitchen.



Figure 54: View looking to the northeast in the library (room 201). The second window from the left has been altered to function as a "door" out onto the second level of the front porch. The top and bottom sash have been attached at the meeting rail and hinged at the side to swing open like a door.



Figure 55: View from the rear third floor landing to the center third floor bedroom (room 302). This room "floats" above the second floor hall and light well, both visible in the lower half of this photo.



Figure 56: View of one of the two stairways that run from the second floor hall (room 202) up to the third floor landings.



Figure 57: View looking to the northwest from the library (room 201).into the second library space (room 203). This room most likely occupies the space where the main stair was originally located.



Figure 58: View looking north from the library (room 203) into the kitchen.(room 302A). The board door visible in the center of the picture opens into the second floor of the vault (room 204).



Figure 59: View looking to the north in room 209, the original indoor bathroom, showing the vertical board walls.



Figure 60: View looking to the southwest in the back stair hall (room 210) showing the door into Dr. Hubbell's Bedroom (room 211).



Figure 61: View looking to the north in Dr. Hubbell's bedroom (room 211) showing two beaded board closets. Restoration has already begun in this room.

Figure 62: Image Missing



Figure 63: General view looking south in Clara Barton's bedroom (room 213). The beaded board closet seen at the left of the photo was reconstructed based on physical evidence discovered during restoration.



Figure 64: General view looking southeast in room 214. Most walls in this room are still covered with fiberboard.



Figure 65: View looking north in room 214 showing the area with the level ceiling. This was done in this room because the joists for one of the third floor landings cantilever out over the wall to the left of the photo. The other end of these joists tie to the rafters at the point where the ceiling begins to slope.



Figure 66: General view of room 215 looking north. Most of the walls in this room are still covered with fiberboard.



Figure 67: View looking to southwest in the parlor chamber (room 218). The doors to the right of the photo open into the library (room 201). The open door leads into the bathroom (217) and the closet (216).



Figure 68: General view looking to the northeast in the parlor chamber (room 218). The balustrade of the second floor of the front porch can be seen through the windows.



Figure 69: General view looking up from the second floor hall (room 202) to the front third floor landing (room 302) and into the third floor front bedroom (room 301).



Figure 70: View looking northeast in the center third floor bedroom (room 303). The steps down to the front third floor landing (room 302) are at the right side of the photo.



Figure 71: View looking north in the third floor center bedroom (room 303).



Figure 72: View from the center hall of the second floor (room 202) up the stairs to the rear third floor landing (room 304). The rear third floor store room (room 305) is just visible through the doorway seen in the top center of the photo.



Figure 73: *View of the beaded board partition that encloses the rear stair.*



Figure 74: View looking to the southeast in room 206. Most of the wall surfaces in this room are plaster on wood lath. This view shows the transom in the wall. There was originally a door here, but it was covered over when the stairs to the third floor were constructed in 1897 on the other side of the wall.

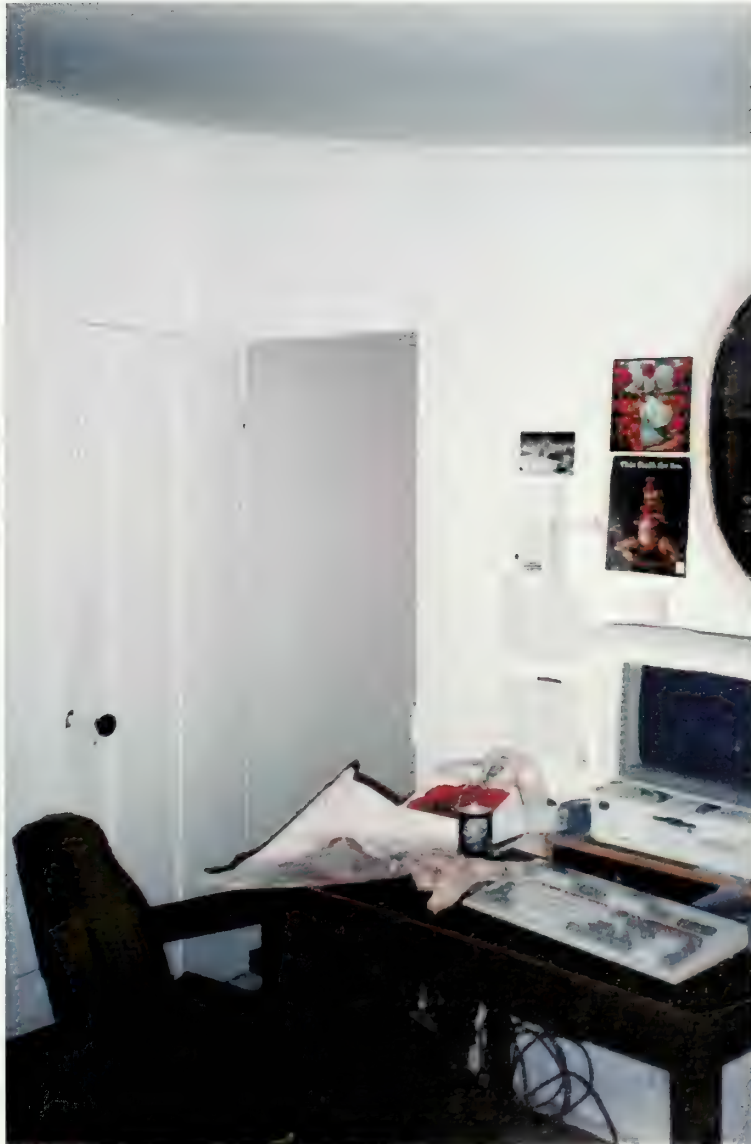


Figure 75: View looking to the south in room 207. Most of the wall surfaces in this room are plaster on wood lath. This view shows the doorway into room 208 and the back side of the only board and batten partition between two rooms.

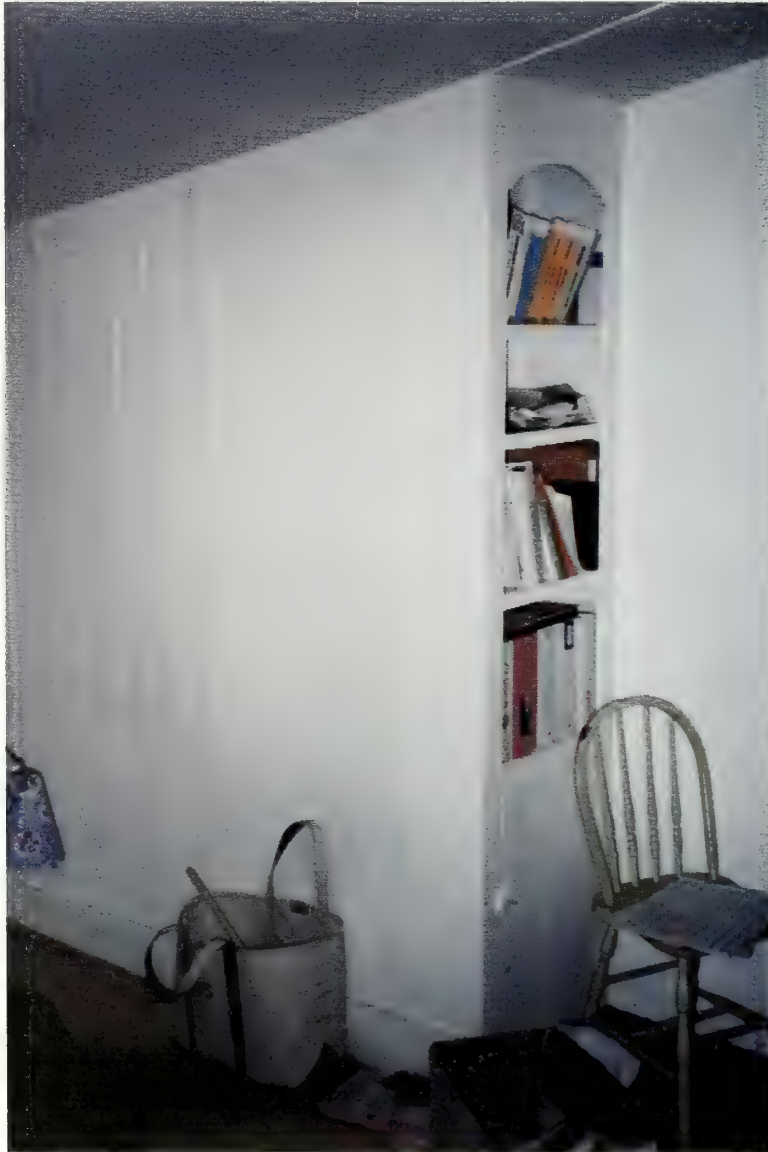


Figure 76: View of a board partition wall in room 207 showing one type of beaded board found in the Clara Barton House.

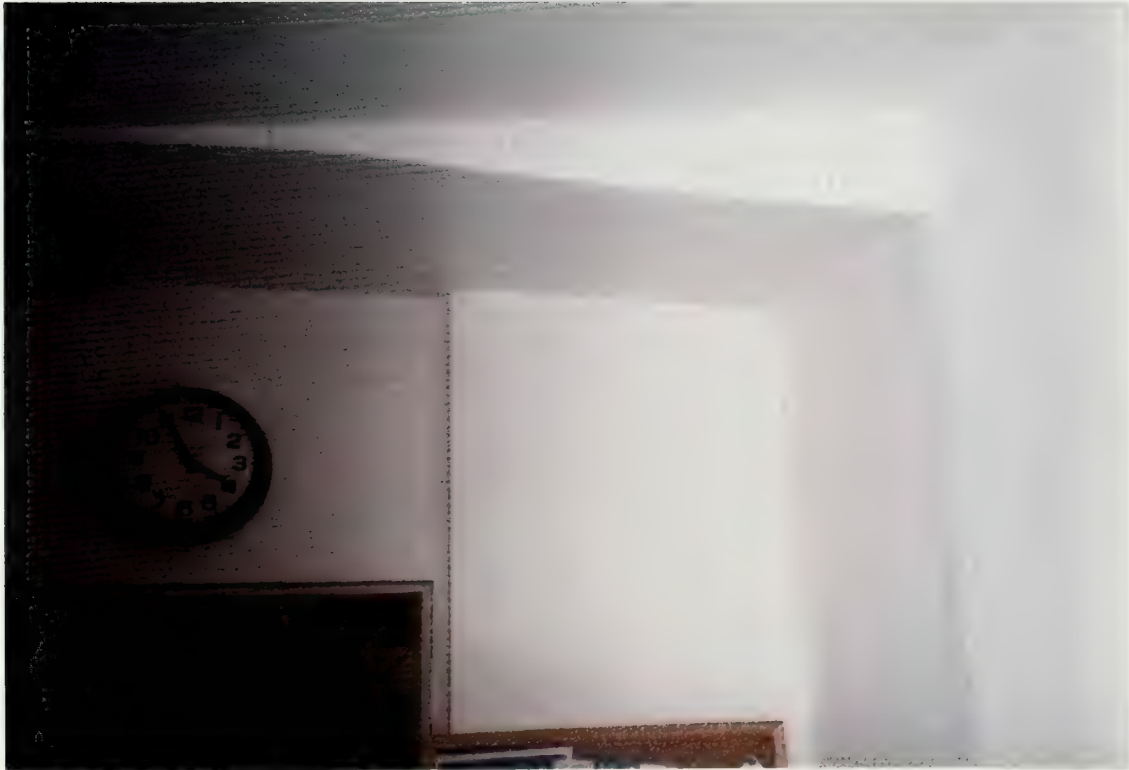


Figure 77: View looking to the northeast in room 207. Most of the wall surfaces in this room are plaster on wood lath. This view shows a small area where the ceiling has been dropped. There was probably originally a closet here.



Figure 78: View of the board and batten partition in the second floor kitchen (room 208). This is one of the few board and batten partitions in the house.



Figure 79: View looking west in the walk-in closet (room 216). The door at the right of the photo opens into the hall (room 202).



Figure 80: General view of the bathroom (room 217).



Figure 81: View of the southeast elevation of the Clara Barton House showing how the foundation piers are irregularly spaced and sized. Also notice that basement windows toward the rear of the house are six-over-six double-hung while those farther toward the front have six light fixed sash.



Figure 82: View, from inside the basement, of a stone foundation pier on the northwest elevation. Note how the stonework changes at the horizontal joint just below the top of the adjacent brick infill panels. The stone below this joint was added to extend the bottom of the pier downward at the time that the basement was excavated.



Figure 83: View looking north toward the front wall of the basement. The mass under the plastic sheeting is the unexcavated portion of the basement. Excavation was halted, at least in part, to prevent undermining the foundation wall.



Figure 84: Close-up view of the base of the wall at the south corner of the vault foundation. The vault foundation was apparently originally built deeper than the foundation under the perimeter walls. The concrete curb was installed as part of the structural work performed by the NPS.



Figure 85: View, from inside the basement, of the stone foundation pier on the northwest elevation closest to the vault. Note how the color and quality of the stonework changes toward the bottom of the pier. The lower section of stone was added to extend the bottom of the pier downward at the time that the basement was excavated. No concrete was poured at the base of this pier and it rests directly on the dirt floor of the basement.



Figure 86: View, from inside the basement, of the stone foundation wall on the southeast elevation. Here, rather than extend the stone piers downward when the basement was excavated, the area adjacent to the wall was left unexcavated. Along this wall, the unexcavated section has been encased in concrete.



Figure 88: View, looking east, at the northwest wall of Room 301 showing how the header above the windows is sagging.



Figure 90: View of northwest elevation of the Clara Barton House showing some of the different types of German siding used on the house. Typically, the vertical trim board separate section of different siding. Also note the large 24 light window installed in the main stair well, the small six light sash installed below it, and the six-over-six windows that run along the side and rear elevations of the house.



Figure 91: Close-up view of two types of German siding on the northwest elevation. The siding on the left covers the brick wall of the safe.



Figure 92: Close-up view of two types of German siding on the northwest elevation. The siding on the left is the replacement siding installed by the NPS after the side entrance and stair were removed..



Figure 93: Close-up view of two types of German siding on the west corner of the northwest elevation.

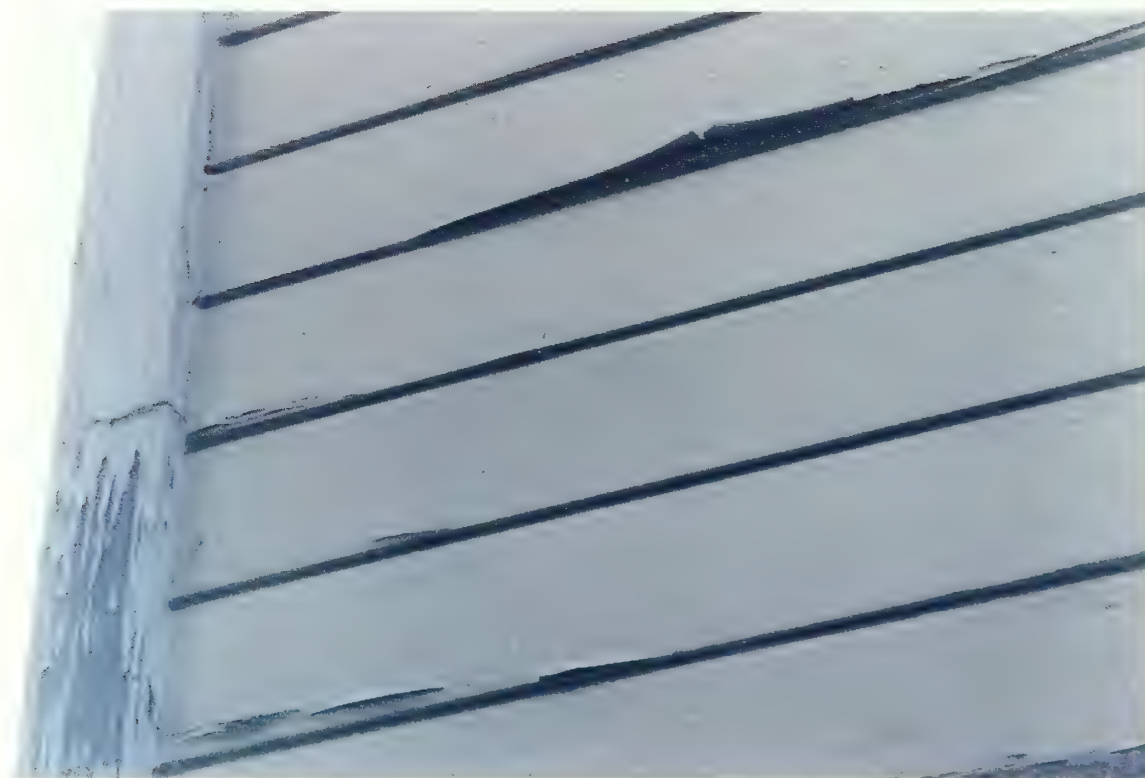


Figure 94: Close-up view of replacement German siding on the southwest elevation. Notice the peeling paint.



Figure 95: General view of the siding on the northwest elevation. The dark splotches are areas that have mildewed.



Figure 96: *Close-up view of the lap siding on the northeast elevation of room 301. The exposed endgrain of the siding deteriorating and this board has split..*



Figure 97: *Section of the soffit on the southeast elevation of the house showing where water penetration from gutter leaks is causing the paint to peel.*

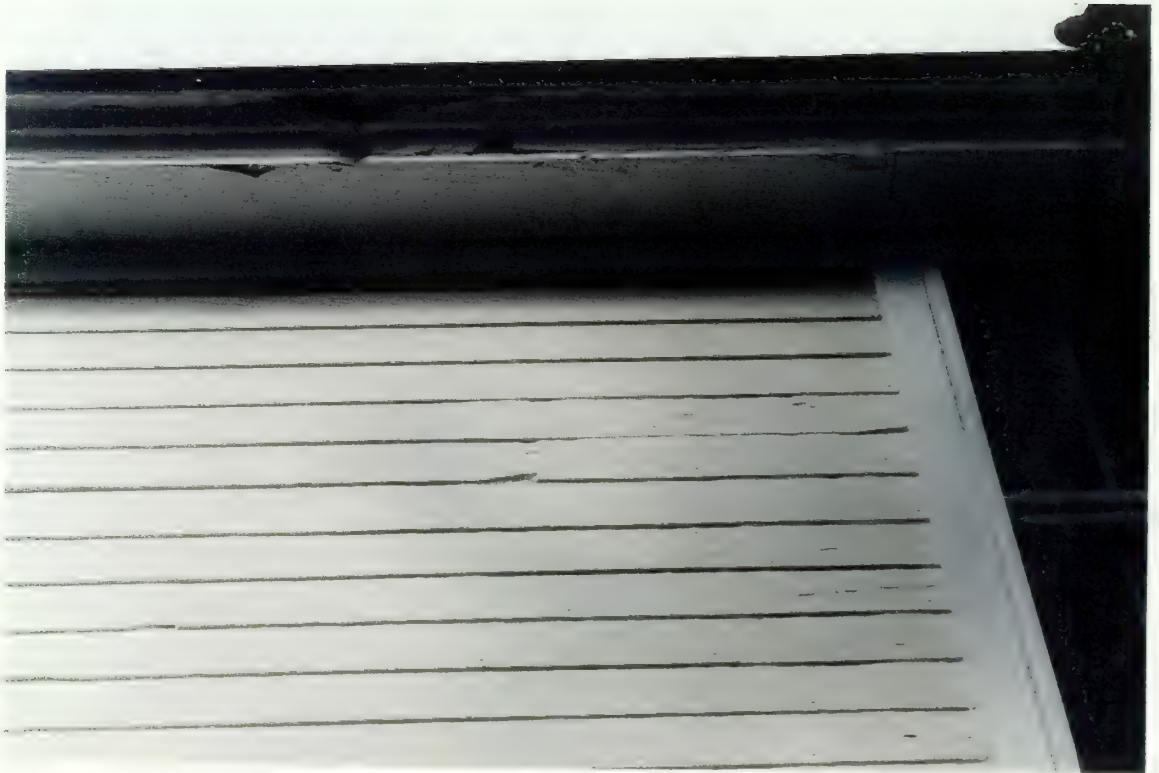


Figure 98: *Section of the soffit on the southeast elevation of the house showing where water penetration from gutter leaks has caused a section of the soffit to rot through.*



Figure 99: Close-up view of a second floor window sill at the front porch roof. Because the roof deck is level with the sills, there is no room for flashing causing the window sills and trim, and adjacent siding to deteriorate. Here, the trim visible at the top left of the photo has been replaced and the window surround is in particularly bad condition.



Figure 100: View looking down on the sill of a second floor window at the front porch roof. Because the roof deck is level with the sills, there is no room for flashing causing the window sills and trim, and adjacent siding to deteriorate. This view shows a weathered sill badly in need of repainting.



Figure 101: View looking up at the top of a front porch column showing evidence of water penetrating down through the porch roof.



Figure 102: View showing the base of a front porch column showing evidence of water damage.



Figure 103: View showing the end of the front gable molding. Although the ends of the trim have been covered with metal flashing, the endgrain of some of the wood is beginning to deteriorate.



Figure 104: View, looking northwest along the front elevation, showing how the parapet roofing is turned up at the wall without any counter flashing. The metal roofing actually turns out, away from the wall, at the top creating a "funnel". This funnel is filled with sealant, however, the sealant if failing and will allow water to be channeled behind the flashing.



Figure 105: *Roof detail showing where two pan seams meet a hip seam. The junction of the three seams does not appear to be sealed and may admit water.*



Figure 106: Close-up view of the flashing at one chimney showing how the lack of an adequate seal could allow for water to gain access behind the flashing. similar conditions exist at other chimneys.



Figure 107: Close-up view of a soldered seam in the flat roofing at the diverter showing how the lack of expansions joints has caused the joint to fail.

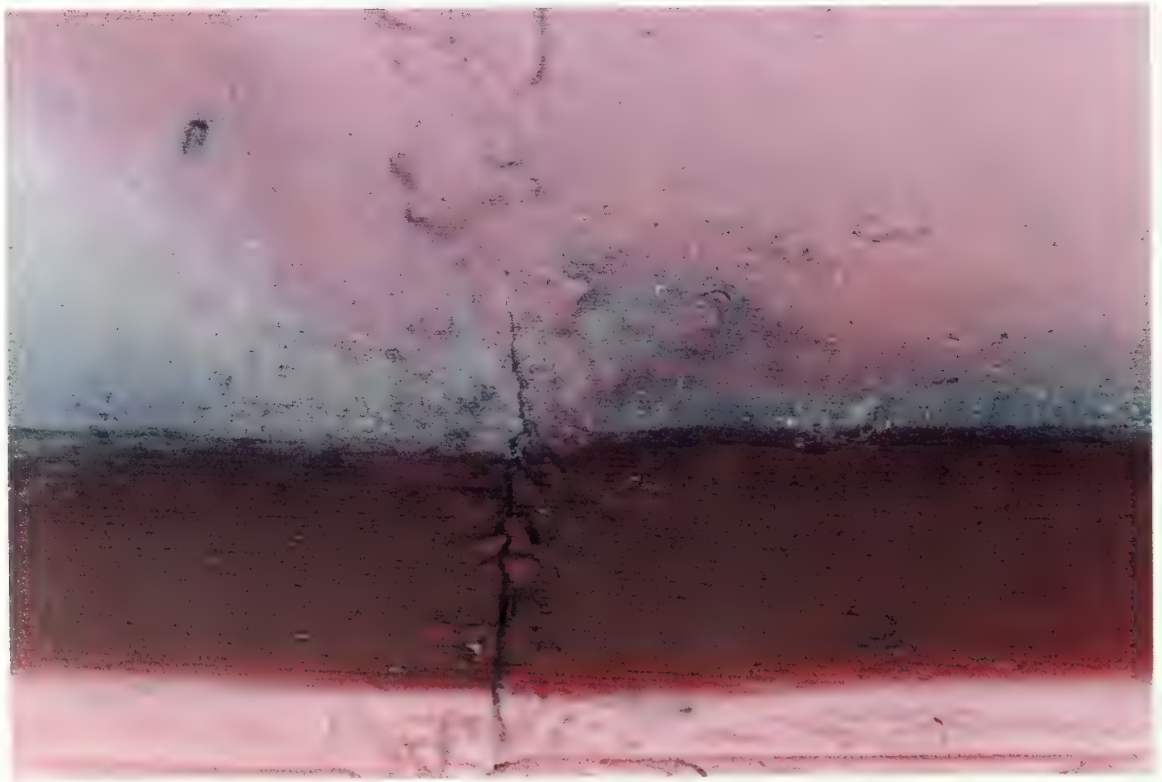


Figure 108: Close-up view of a soldered seam in the flat roofing at the diverter showing how the lack of expansions joints has caused the joint to fail.



Figure 109: Close-up view of a soldered seam in the flat roofing at the diverter showing how the lack of expansions joints has caused the joint to fail. It appears that an attempt has been made to resolder this joint. Notice that this joint has failed not only at the diverter but also adjacent to the joint with the standing seam roofing. The soldered joint between the flat and standing seam roofing, visible at the bottom of this photo, is typically in good condition.



Figure 110: View looking northeast along the second floor roof of the northwest wing of the Clara Barton House. Notice the bow in the rafters. Also notice how the standing seam roof terminates to the right of the diverters.



Figure 111: Close-up of the area adjacent to one of the windows in room 215. The roof above this room has been leaking and water damage such as this is visible along this wall and in the ceiling above.



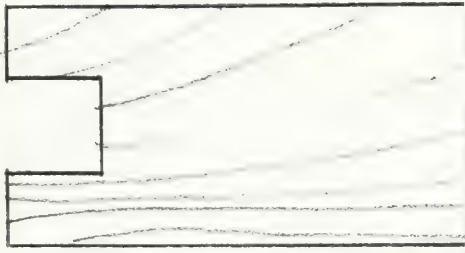
Figure 112: Close-up of the ceiling in room 201. During the summer of 1996, water damage was first noticed in this area of the ceiling. Although no source for the leak is immediately apparent, the volume of water entering here has been sufficient to open a hole in the gypsum board ceiling.



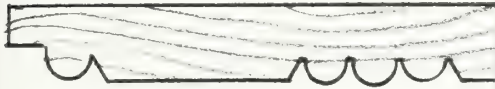
Figure 113: *View of the balcony on the third floor of the front elevation. Despite the fact that a small amount of water is pooling on the balcony, there is no apparent source for the leak that has damaged the ceiling of the room below.*



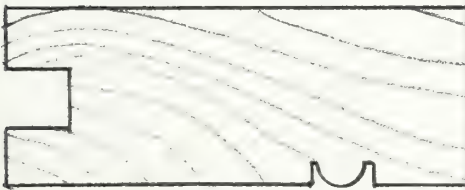
Figure 114: Close-up view of insect damage to the floor in room 218.



Type 1



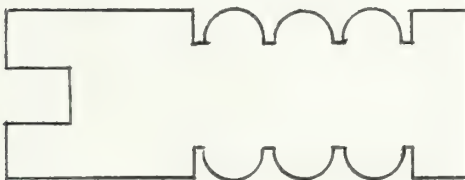
Type 2



Type 3



Type 4

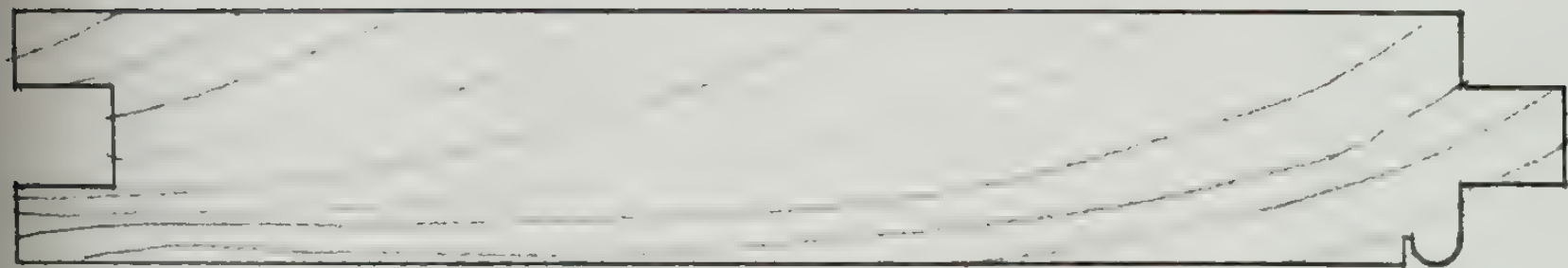


Type 5

Illustration 1

Beaded Board Profiles

Full Size



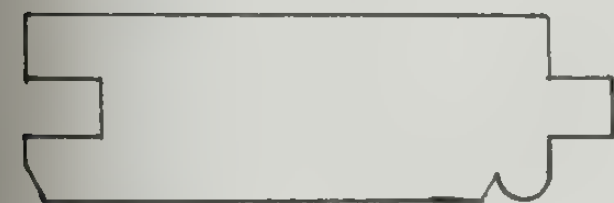
Type 1



Type 2



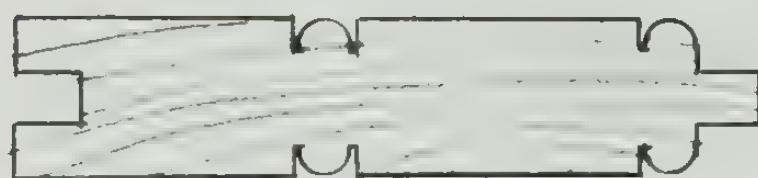
Type 3



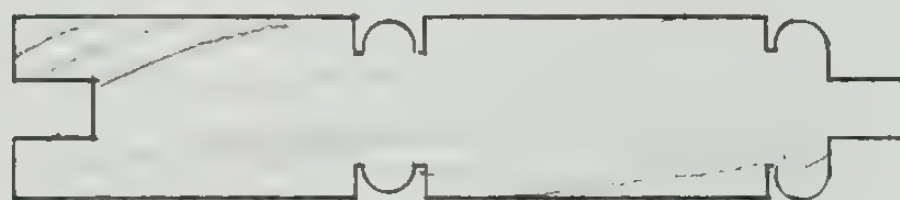
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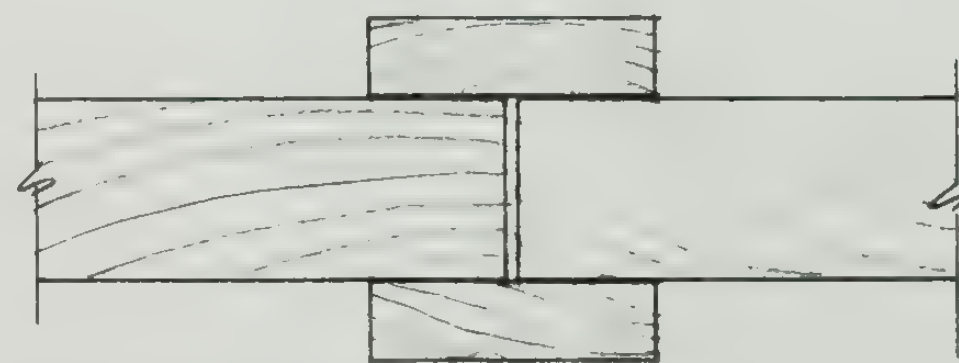
Type 5



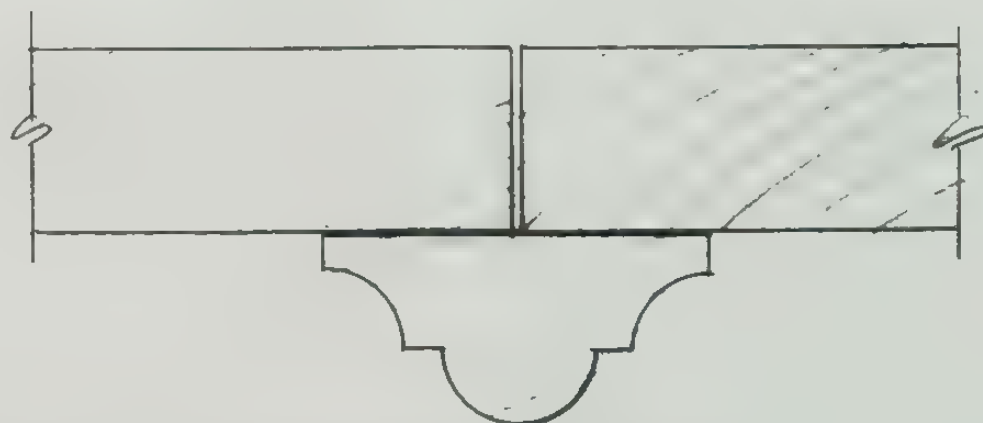
Type 6



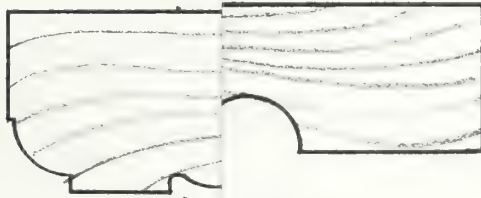
Type 7



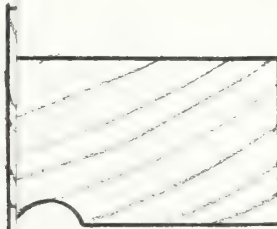
Board and Batten (Type 1)



Board and Batten (Type 2)



Symmetrical Type 3)



"Victorian Type 5)



"Victorian Type 6)



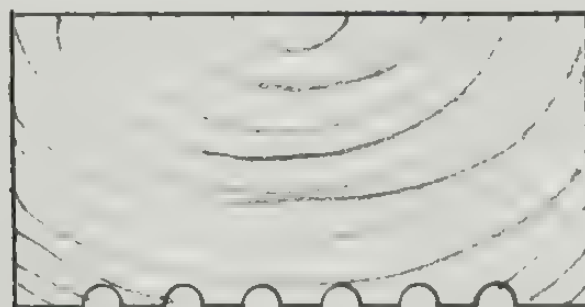
Sanitary

Illustration 2 Trim Profiles

Full Size



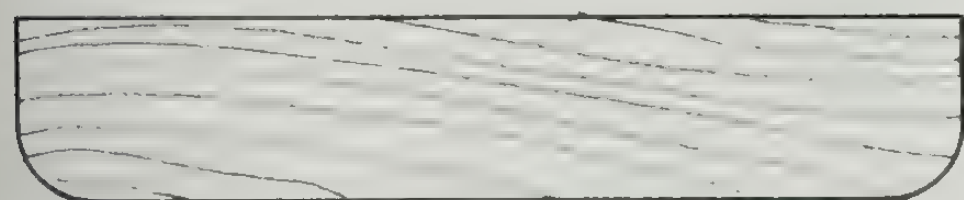
Symmetrical Trim (Type 1)



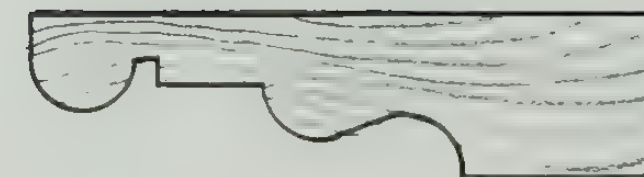
"Victorian" Trim (Type 2a)



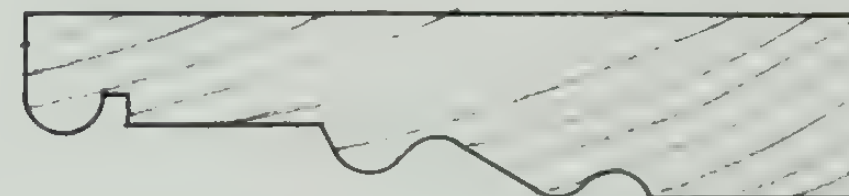
"Victorian" Trim (Type 2b)



Sanitary Trim (Type 4)



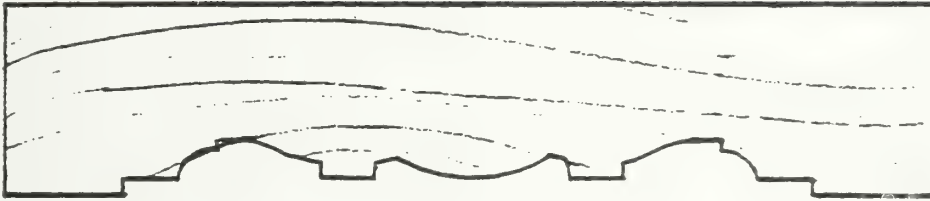
"Colonial" Trim (Type 3)



"Colonial" Trim (Type 5)



Symmetrical Trim (Type 6)



Bull's-Eye Corner Block (Type 1)



Bull's-Eye Corner Block (Type 2)

Illustration 3
Molding Profiles

Full Size

2. STRUCTURAL SYSTEM: ANALYSIS, CAPACITIES AND CODE COMPLIANCE

The Clara Barton House is, in general, framed with conventional sawed lumber throughout the floors and the roof. Most of the framing is simple and straightforward; however, there are several unique aspects of the framing that will be discussed in this report. The house framing consists predominately of two exterior load bearing stud walls and two interior load bearing stud walls. The exterior walls are balloon framed and the interior walls are platform framed. The observations and conclusions made in this report are based upon a limited number of spot locations where existing architectural finishes were removed and existing conditions were visually accessible. The accuracy of the findings of this report are limited by the quantity of existing structural information that could be obtained on site.

The Clara Barton House framing systems were analyzed for code compliance with the 1996 BOCA Code. For a public assembly use, such as public tours, a live load of 100 psf is required. In order to meet this requirement, it would be necessary to double, and in some cases, triple the existing joists on the second and third floors. Additional strengthening would also be required at certain joist spans on the first floor.

a. Roof

At the central portion of the high roof, there are three types of framing conditions: a step vaulted area at the center of the house, a sloped ceiling area, and a flat ceiling area. The vaulted roof is framed with four hip members 2 inches by 5-3/4 inches, which meet at the flag pole post in the center of the room. At the eave the hip members bear on a 2-inch by 4-inch ring member supported on a 2-inch by 4-inch stud wall at the corners. There are four rafters equally spaced across each roof plane, spanning between the hip members and the exterior wall. At the interior, it appears that rafters are supported by a continuous 2 inch by 4 inch ring member which ties the outside walls together. (See sketches SK-8 and SK-9, Appendix D)

At the sloped ceiling areas, the roof is supported by 1-inch by 7-inch rafters spaced at 20 inches on center. The rafters frame into a 1-inch by 4-inch ridge board at the center of the room and are supported by 2-inch by 4-inch wood studs at the eave (see sketch SK-5, Appendix D). It appears that since the width of these rooms is relatively small, the horizontal thrust that occurs on this type of framing is most likely resisted by the combination of the diaphragm flexural stiffness between adjacent roof areas and by diagonal flexural tension which will develop in the plane of the sheathing.

The framing at the flat ceiling areas consists of 2-inch by 3-1/2-inch rafters spaced at a 21 inches on center which span between the two, upper exterior bearing walls (see sketch SK-6, Appendix D) which align with the interior bearing walls below. The wall studs at the interior bearing walls measure 2 inches by 4 inches and are spaced at 2 feet-3 inches and 3 feet-0 inches on center alternately. It appears that the spacing varied in order to match the clerestory window arrangement.

The ceiling joists in these areas are 1-3/4 inches by 5-1/2 inches spaced at 21 inches on center. All roofs are sheathed with 1-inch thick wood decking. The width of the decking is variable ranging from 4 inches to 8 inches in width (See sketch SK-1, Appendix D). The rafters at the flanking roof bays are balloon-framed and are supported by a 1-inch by 7-inch ribbon board. Each rafter has a 2-inch by 3-1/2-inch nailer fastened flatwise to the underside of the member (See sketch SK-4, Appendix D). This was most likely done to make attachment of the ceiling finishes easier by providing additional width at the ceiling-to-rafter connections.

All roof members that were visually accessible appeared to be in a sound structural condition. Calculations performed on the typical high roof and low roof rafters and on the hip members indicate that the existing roof framing meets the BOCA snow load code requirements.

b. Third Floor

The third floor occurs over the middle third of the house only. At the center-most area, floor joists are approximately 1-5/8 inch to 2 inches in width and 7-1/2 inches to 8 inches in depth, spanning between interior stud walls. The joist spacing is generally at 21 inches on center. The joists are interrupted at two locations to accommodate stairs where the floor is raised approximately 3 feet above the two adjacent areas. At the raised floor area, there is noticeable bounce on the joists. This is, in large part, due to the isolated nature of the floor versus the remainder of the house. Deflections are somewhat dampened by mass. Therefore, the raised floor has less opportunity to dissipate deflections and has a more noticeable bounce than the adjacent areas, although the floor joists are all approximately the same size, spacing, and span. These joists appear to bow upward with the mid-span being at the highest elevation.

Possible explanations for this could be:

- 1) the joists were originally flat but installed with a high initial moisture content. Since the ends of the joists were nailed tight to the sides of the studs, which was observed at some locations, it is possible that the shrinkage of the wood as it dried may have caused an upward bow in the floor. Or,
- 2) there may be some horizontal thrust being transferred to these joists via the walls studs from the pyramid-type roof above. The studs may be balloon-framed at the third floor, and thus, would be capable of transferring some outward forces to the floor joists.

There is some unusual framing, which occurs adjacent to the low end of the stairs. It appears that the 1-3/4 inch wide by 5-1/2 inch deep ceiling joists, located over the second floor rooms immediately adjacent to the stair, cantilever over the interior stud wall and support a header beam at the edge of the floor opening. The header beam frames into the last continuous floor joist adjacent to the opening at the one end and supports the lowest end of the stair stringer at the other end. The floor joists at the upper floor, which are interrupted by stairs, are also supported by the header beam via the stair stringer. Although somewhat elaborate, this framing system appears to be functioning adequately at the present time. (See drawing SK-2, Appendix D) for the third floor framing plan.

Calculations performed on the third floor framing indicate that the allowable live load capacity for the existing floor joists equals 36 psf, well below the requirements for assembly use. In addition, the cantilevered framing at the stair and stair landing reduces the overall floor capacity at these two locations to 10 psf. This effectively limits the use of the stair to one person at a time. For the typical third floor rooms, an allowable live load capacity of 36 psf limits the room occupancy to about 50 people total based upon full occupancy of the smallest room.

c. Second Floor

At the second floor, it appears that all floor joists span between 2-inch by 4-inch wood bearing stud walls that divide the width of the house into thirds. The typical joist-to-stud bearing conditions are shown in sketch SK-7 in Appendix D.

Two different vintages of framing lumber were observed. The more rough-sawn floor joists consist of 3-inch wide by 6-inch deep members spaced at 2 feet-8 inches on center \pm . These members were not observed at each visible location. The smoother-sawn joists are 2-inches wide by 5-3/4-inches deep and are spaced at 16 inches on center. At some locations these joists have been doubled up for no apparent structural reason at no regular spacing. There may have been some excess lumber that was added to the floor rather than scrapped. It is likely that there were two sources of lumber during the original construction period. See drawing SK-3 in Appendix D for the second floor framing plan.

The low-height framing supporting the main stair landing in the closet under the stair consists of 1-7/8-inch wide by 5-1/2-inch deep joists spaced at 24 inches on center. These joists are supported at the exterior window opening by 4-inch wide by 3/4-inch deep wood header, which is showing signs of structural distress.

At one corner of the house, there is a brick enclosed concrete vault. A concrete floor slab is supported by a shallow brick vaults carried by a small beam, that appears to be cast iron, located at the middle of the vault. There are two 3/4-inch diameter tie rods located at the third span locations of the beam. The slab appears to have been cast directly over the brick arch, which served as a form for the concrete.

At the second floor, the calculated allowable live load capacity equals 25 psf, 27.5 psf and 46 psf at the central portion of the house, at the wings of the house, and at the central hallway respectively. These capacities are significantly less than 100 psf live load which is currently required for assembly uses. Assuming public tours on this floor would not gather people in bathrooms and closets, the calculated maximum group size equals 16 people based upon the full occupancy of the smallest accessible room, which is the central kitchen. The allowable group size would increase if the smaller rooms were not used on the tour.

d. First Floor

The original first floor has been upgraded significantly. The existing 2-inch by 8-inch joists at 24 inches on center have been supplemented by additional 2-inch by 8-inch joists spaced at 12 inches on center with a new 2-by-6 stud bearing wall at grid C and W6 steel beams added elsewhere to support the joists. This work is detailed on the as-built drawings dated December 31, 1981.

No physical defects were observed at any of the floor members other than the window header described previously.

The calculated live load capacity of the strengthened first floor framing system is limited by the capacity of the 2-inch by 8-inch joists, which is calculated as 84 psf. However, this is still less than the 100 psf capacity required for assembly uses. Based on the full occupancy of the smallest accessible room on this floor, the maximum allowable group size would be approximately 60 people.

e. Foundation

The existing, below-grade, foundations were visually inaccessible at the time of our survey, however, the interior and exterior surfaces of the above-grade foundation walls were examined for signs of foundation settlement induced cracking. All indications are that the existing foundations are performing adequately.

3. MECHANICAL SYSTEMS: ANALYSIS, CAPACITIES AND CODE COMPLIANCE

a. Heating System:

Building heating is provided by single oil-fired sectional induced-draft hot water boiler housed in a separate free-standing shed-type building located near the northwest site boundary. This boiler produces heating hot water that is pumped, underground, to the building, where it extends to various heating terminal devices, each containing a hot water coil.

The boiler is manufactured by H.B. Smith, Model 2500L with Carlin Model 301CRD burner. Both the boiler and burner appear to be in fair to good condition. The estimated boiler output (net water) is 426,000 Btuh. We believe the installation date of the boiler and accessories to be calendar year 1982.

No. 2 fuel oil for the boiler is stored in a below-grade tank located beneath the northwest lawn, with fill, vent and access openings located above. The determination of size, construction material and condition of this tank is not included in this section of the report.

Water enters the boiler room through a sleeve in the floor from underground, extends vertically to ± 7 feet and extends horizontally to the rear of the boiler. There, it drops vertically through a shutoff valve to an inline pump (Bell & Gossett Model P57270, 1-1/2 HP) and returns to the boiler inlet connections. Hot water supply extends off the top of the boiler through a 2-1/2" Airtrol air extraction fitting, extends horizontally and drops through a shutoff valve to a floor sleeve adjacent to the return floor sleeve. Make-up water enters via the same sleeve as the supply water, extends vertically and horizontally, and enters the Airtrol fitting through a backflow preventer. An expansion tank is connected to the Airtrol fitting. All piping, pump and fittings appear to be in fair to good condition.

Combustion air for the boiler enters through a ceiling-mounted grille which opens to the "attic" above the shed. Louvers on both ends of peak allow air to enter the attic. Products of combustion are vented via the smokehood/vent collector located on the back of the boiler. A round vent connector extends to a tee connection with bottom cleanout, which in turn leads to a double wall metal chimney that extends through the ceiling and roof.

Hot water supply and return piping extends underground (condition unknown) and enters the basement of the building on the northwest wall. Insulated hot water supply and return piping extend throughout the perimeter of the basement with branch lines extending up to various heating devices on the first and second floors.

Various heating terminal devices are scattered throughout the basement, first and second floors:

Basement:

- Horizontal (hung) cabinet heater on northeast, below entry.

- Horizontal (hung) cabinet heater on centerline of basement near entry to apartment suite.
- Horizontal (hung) unit heater in utility room.
- Heating coil in 4-pipe fan coil unit on southwest wall, in apartment living room.
- Baseboard fin-tube radiation on southwest and southeast walls of apartment bedroom.

First Floor

- Three custom cabinet heaters inside cast-iron stove replicas in entry area, center hall and historic Red Cross office on southwest side of building.
- Baseboard fin-tube radiation in reception area (northwest of entry), former bathroom of northwest facade and small office on southeast facade.
- Cast-iron radiator in kitchen area on northwest facade.
- Heating coils in 4-pipe fan-coil units in three rooms, one in exhibit room on northwest facade and two in offices on southeast facade.

Second Floor

- Baseboard fin-tube radiation in former living room and dining room on northeast corner/facade; former bedroom, kitchen and bath in northwest facade, and bathroom on southeast facade.
- Heating coils in 4-pipe fan coil units in two offices, one on northwest facade and one in east corner.

Third Floor

- No heating terminals.

We believe the components of the heating system were installed in 1982. With the possible exception of the hot water system pump and the piping insulation, most of the system components appear to be in fair condition. The following table compares the installed equipment to Estimated Median service life expectancies of equipment listed in the 1995 ASHRAE Applications Handbook:

Description of Item	Estimated Age of Item (years)	ASHRAE Median Service Life Expectancy	Estimated Remaining Useful Life
Boiler	15	30	15
Boiler Burner	15	21	6
Hot Water Pump	15	10	0
Piping and Accessories	15	25	10
Piping Insulation*	15	20	5
Unit Heaters	15	20	5
Cabinet Heaters in Basement	5	20	15
Custom Cabinet Heaters	15	20	5
Fan-coil Units	15	20	5
Fin-tube Radiation	15	25	10
Radiators	15	25	10
*Needs replaced now			

b. Cooling System:

Cooling is provided to limited areas of the building by a central chilled water system. A split air-cooled condensing unit (Carrier Model 38RE060300), located to the south of the building, rejects heat to the atmosphere. Refrigerant pipes extend underground to a wall-mounted chilled water chiller evaporator section (model unknown) located beneath the rear basement stair. An inline chilled water supply pump (B&G P00381, 1/6 HP) supplies chilled water to a loop located in the basement, which feeds branch risers to chilled water coils in 4-pipe fan coil units located as follows (see sketches):

Basement

- In apartment living room or southwest wall.

First Floor

- In the exhibit room on the northwest wall and in two offices on the southeast wall.

Second Floor

- In one office on the northwest wall and one office/conference room on the east corner.

Third Floor

- No cooling terminals.

We believe that the cooling system is past its useful life and should be replaced with a new system (see Part 2 of this report). The following table compares the installed equipment to Estimated Median service life expectancies of equipment listed in the 1995 ASHRAE Applications Handbook:

Description of Item	Estimated Age of Item (years)	ASHRAE Median Service Life Expectancy	Estimated Remaining Useful Life
Condensing Unit	5	15	10
Evaporator	15	15	0
Piping and Accessories	15	25	10
Piping Insulation*	15	20	5
Fan-coil Units	15	20	5
*Needs replaced now			

c. Miscellaneous Systems

- The basement apartment contains a filtered recirculating toilet exhaust fan and kitchen hood.
- The basement utility room includes a dryer vent through the northwest exterior wall.

d. Heating/Cooling Systems - Capacity Analysis

The existing heating plant capacity is marginally inadequate ($\pm 20\%$ short) to heat the building with its current perimeter skin. Major heating loads are:

- Substantial infiltration through doors, windows and cracks in exterior walls.
- Substantial heat loss through single-pane glass and uninsulated walls and roof.

- Piping heat loss (anticipated) from boiler plant/building separation.

The existing heating distribution system piping main appears to be adequately sized to provide the additional heating capacity necessary to heat the building.

The location, spacing and size (capacity) of the existing heating terminal units is insufficient to provide the proper heating capacity and heat dispersion. Only certain rooms and areas are heated while many rooms are left unconditioned.

The existing cooling plant is sized only to cool the certain rooms that have fan coil units. The cooling plant and distribution system cannot support any attempt at cooling the entire facility (size is approximately 1/10th of the required capacity to cool the existing structure). Again, the location, spacing and size of the existing fan coil units is insufficient to cool any areas other than the rooms where located.

e. HVAC Systems - Noted Possible Code Deficiencies

Several potential code deficiencies were noted in the boiler room, as follows:

The location of the combustion air intake is not per code requirements. Code requires combustion air intakes high and low, sized to provide sufficient combustion air. The present arrangement has only a high intake.

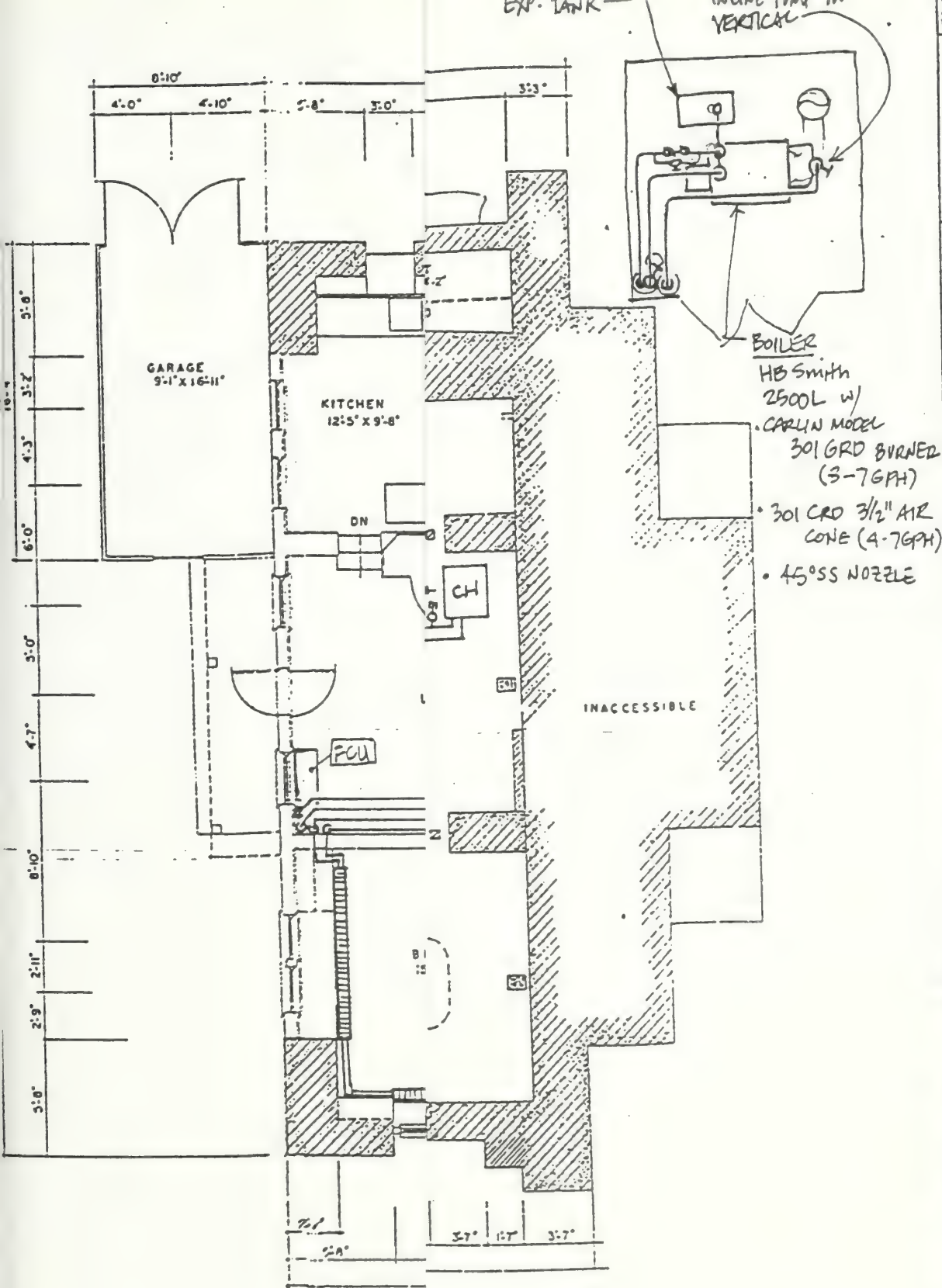
- Code generally requires vertical metal chimneys to pass through the roof via a ventilated roof thimble. None were noted.
- Code generally requires chimney termination a minimum of 10 feet from the property line. We are unsure whether the existing chimney meets this requirement.
- Code requires boiler to have pressure gauge and temperature gauge. None were noted.
- Code requires shutoff valves on both sides of makeup water backflow preventer. None were noted.

Items noted within the building are as follow:

- Some sections of hot water piping and chilled water piping are uninsulated. Code requires insulation in most cases (some exceptions).
- Toilet exhaust in basement is recirculating type; not permitted by code.
- Kitchen hood in basement is recirculating type; usually only permitted when kitchen has window to outdoors, which is not the case here.
- No exhaust was noted in the public toilet on the first floor.

Other issues not presently code-related but future ramification.

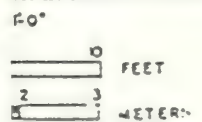
- CFC's - The present cooling system refrigerant (R22) is being phased out and will not be available in the future.



DEVERLY J. SANCHEZ	MEHUEL D. SHYDER	DAVID D. BALLARD	JAN 1976	CLARA BARTON HOUSE	GLEN ECHO	MONTGOMERY COUNTY	MARYLAND	NO	300	HISTORIC AMERICAN BUILDINGS SURVEY	Sheet 2 of 9
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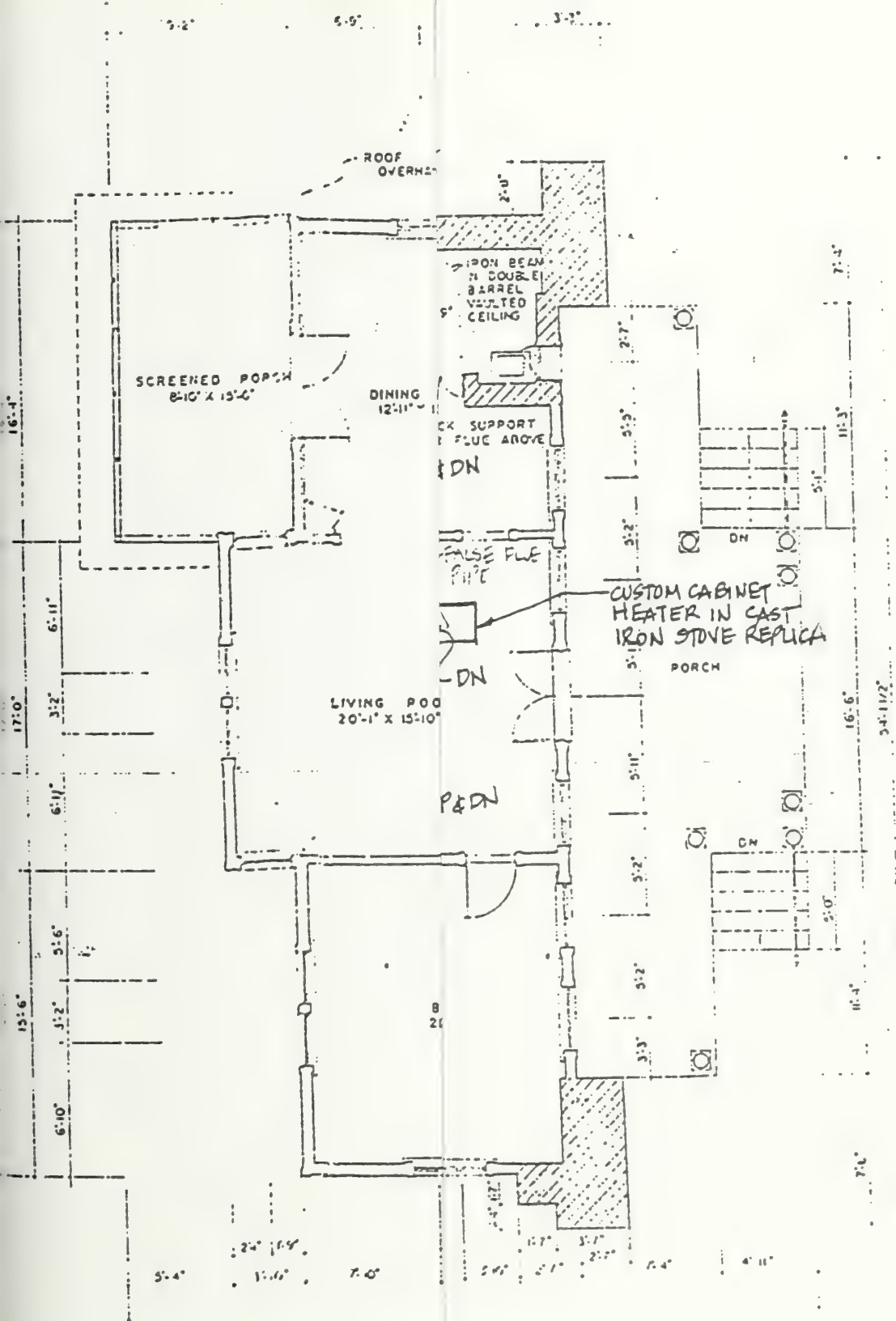
FINISHES
WOOD THROUGH CUT APARTMENT AND UTILITY ROOM. BASEMENT FLOOR IS EARTH EXCEPT FOR CONCRETE PAD AND VAULT WHICH IS MASONRY.

T PLAN:



M-1

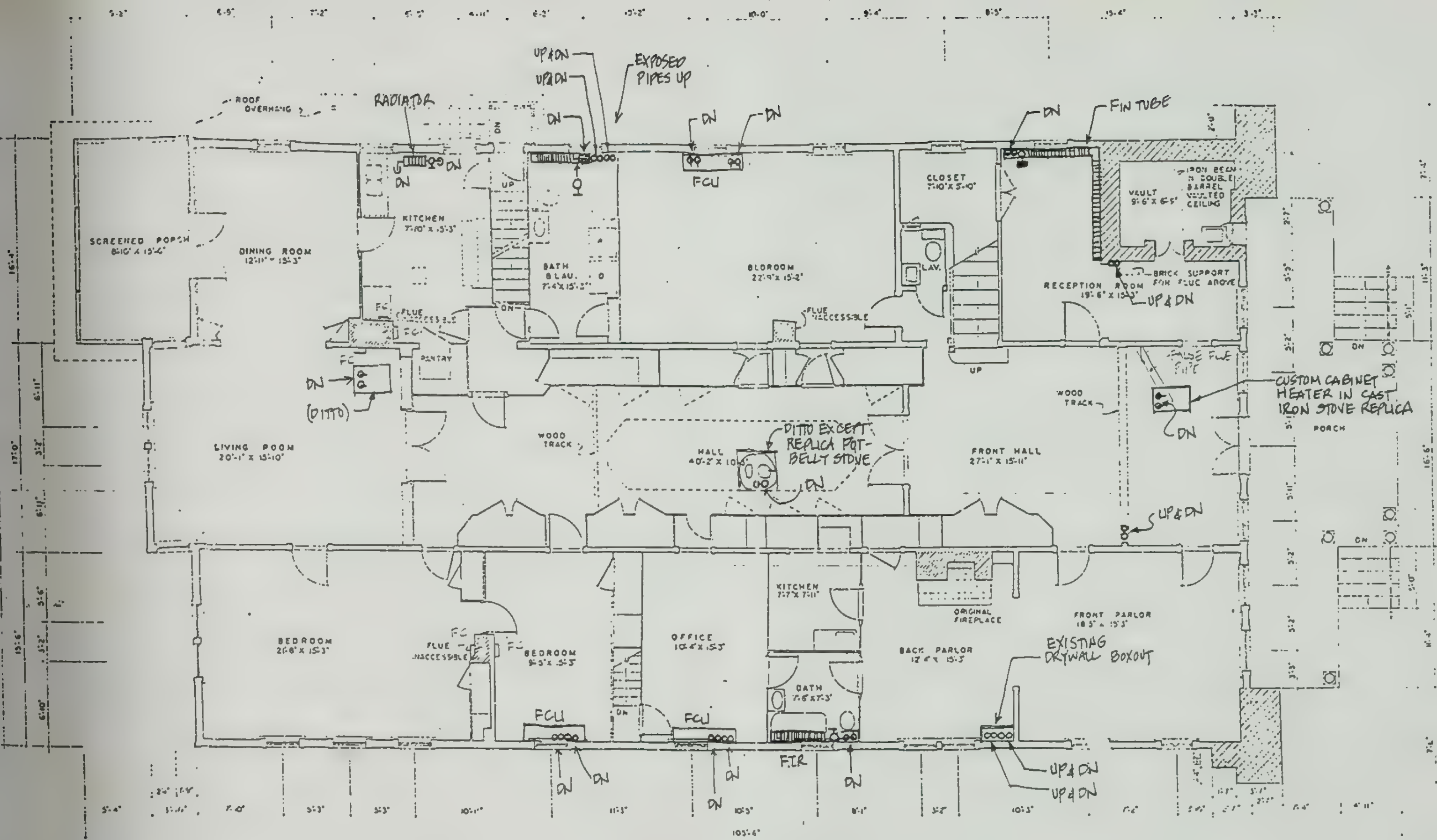
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00003



POST CARD AMERICAN
BUILDINGS OF
NO. 320

CLARA BARTON HOUSE
MONTGOMERY COUNTY MARYLAND
2921 OXFORD ROAD GLEN ECHO

M-2



NOTE
ALL HALL CLOSETS ORIGINALLY
OPENED INTO HALL AS INDICATED
IN DASHED LINES. DOORS AND
STILL INTACT BUT NOT OPERABLE

MAJOR CHANGES IN PLAN OCCURRED
BETWEEN 1929 AND 1942 WHEN
HOUSE WAS DIVIDED INTO APARTMENTS.

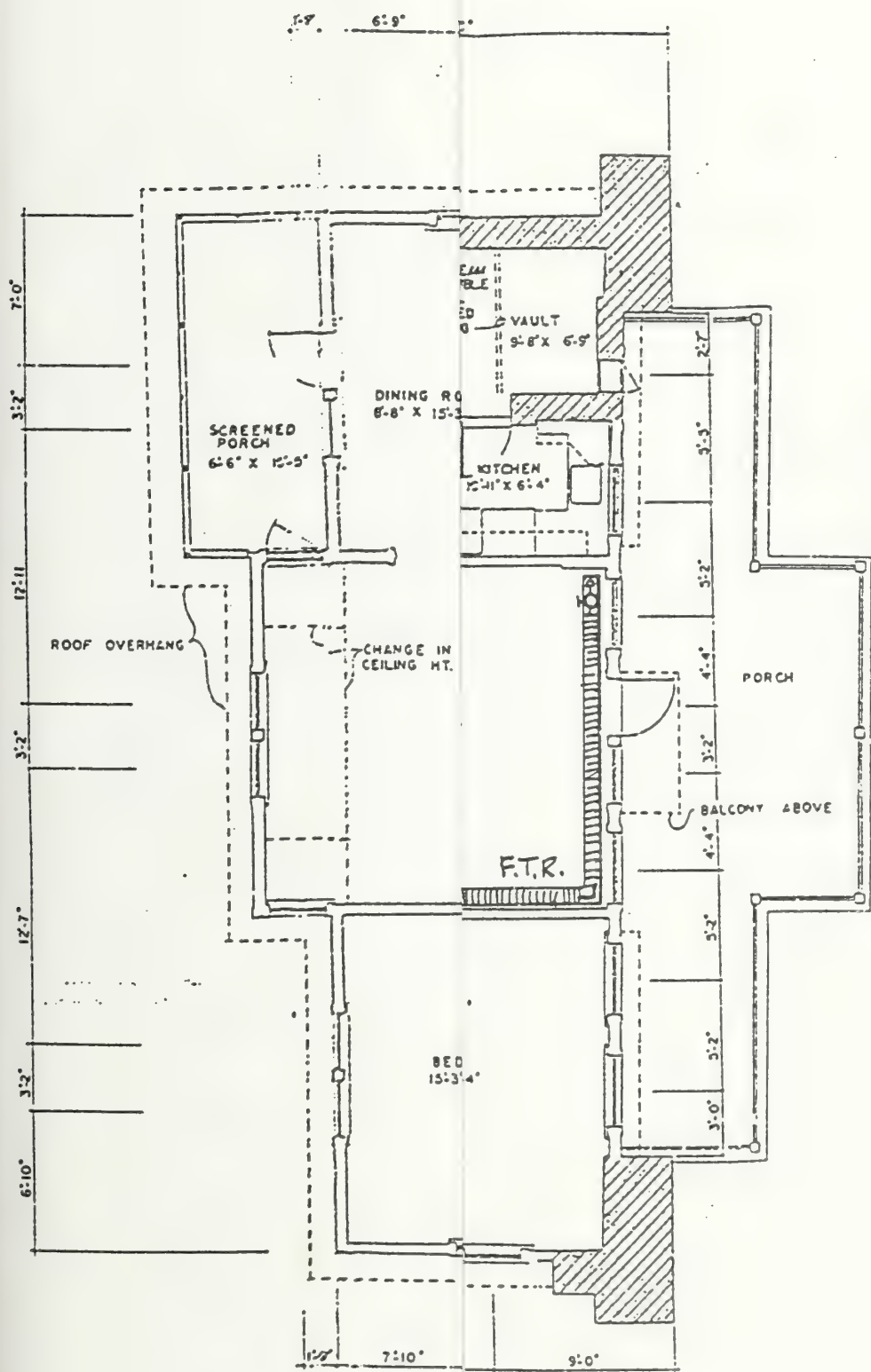
- FINISHES**
- FLOORS: WOOD OVER ENTIRE HOUSE EXCEPT VAULT WHICH IS MASONRY. KITCHENS, BATHS, AND MIDDLE SECOND FLOOR BEDROOM ON EAST HAVE LINOLEUM
 - WALLS: EXTERIOR - WOOD FRAME WITH PLASTER FINISH. VAULT AND N.E. CORNER MASONRY CONSTRUCTION. INTERIOR - MOVABLE WOOD PARTITIONS, WOOD FRAME WITH WOOD OR PLASTER FINISH. CANVAS WITH BATTENS AND WOOD

FIRST FLOOR PLAN

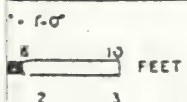
SCALE: 1/4" = 1'-0"



M-2



FLOOR PLAN



M-3

MICHAEL D. SINTOER BEVERLY J. SANCHEZ DAVID D. BALLARD		JAN 1976		CLARA BARTON HOUSE		MONTGOMERY COUNTY MARYLAND	
NATIONAL CAPITAL PARKS SERVICE		1976		5801 OXFORD ROAD		GLEN ECHO	
BARTON HOUSE		300		HISTORIC AMERICAN BUILDING SURVEY		1976 4 11 7	

4. ELECTRICAL SYSTEMS: ANALYSIS, CAPACITIES AND CODE COMPLIANCE

a. Service and Service Equipment:

- The existing service to the house is provided at 240 volts, 1 phase, 3 wire from a 25 KVA pole-mounted transformer located on the east side of the house.
- The service is overhead from the pole to a meter located on the outside of the house. From the meter, the service cable (2 #4/0 AL + ground) goes through the wall of the house, across the ceiling and into a trough from which it serves three panelboards and a fused disconnect switch for the fire alarm system. (See attached riser diagram.)
- Service size based on the transformer size and the National Electric Code is 104 amperes. The service conductors can carry 144 amps. Based on a phone conversation with PEPCO, the peak demand load was 62.5 amps in August, 1996.
- Service equipment consists of two 200A, 1 phase, 3 wire, 20 pole panelboards each with a 200A main circuit breaker and one 100A, 1 phase, 3 wire, 20 pole panel with a 100A main circuit breaker.
- There is also one 2P, 30A fused disconnect switch fused at 20A for power service to the fire alarm system.
- All of the panelboards and the disconnect switches are in good condition; however, the circuit breakers and wiring were in poor condition.

b. Lighting:

- Lighting throughout most of the house is provided using older design lamp holders with incandescent lamps. There are some fluorescent fixtures in some of the office areas on the first floor.
- Lighting levels are generally low but adequate for movement and viewing of the various displays.
- Emergency egress lighting is provided using battery powered, wall-mounted lights. These appeared to be relatively new and in good condition.
- Control for most of the lights is provided using integral pull chains on the fixtures with wall switches in the kitchen, bathrooms, offices, library and some bedrooms.
- The apartment in the basement had been provided with track lights in the living/dining room, a fluorescent fixture in the kitchen and incandescent ceiling light in the bedroom. The bathroom had "over mirror" lights built into the medicine cabinet.

c. Power Outlets:

Receptacles: Generally, there are receptacles throughout the house with the exception of the second floor rear sitting room and the first floor living room and the main part of the basement.

Most of the older receptacles are flush-mounted and served using Bx wiring.

There are many rooms on the first, second and third floors that have surface-mounted receptacles served using Romex or non-metallic wiring. See attached test report for types and condition of receptacles.

d. Branch Wiring:

All branch wiring is provided using either Bx for the older circuits and non-metallic cable (NMC) for the newer work.

All wiring in the basement appeared to have been done recently (within the last five years) using NMC.

NMC was used to replace the Bx from the panels to the point it went up to the upper floors in the basement.

We were unable to determine how much of the Bx on the upper floors had been replaced since it was concealed in the walls in most cases. It did appear that wherever the Bx was accessible on the upper floors, it had been replaced with (NMC).

Generally, the branch wiring system appeared to be in good condition; however, there were deficiencies noted such as broken or missing NMC and Bx box connectors. (See test report.)

e. Electrical Systems Test:

GHT retained the services of the Truland Systems Corporation to:

- Perform insulation tests on the electrical wiring system.
- Survey existing system and verify existing circuiting as shown on existing electrical drawings.
- Identify wiring types and condition.
- Identify problem (or potential) areas and recommend possible corrections.

Truland Systems Corporation performed the above (see Appendix G for test data) and GHT has reviewed the survey report and makes the following assessment.

The following circuits did not meet minimum insulation resistance tests and the wiring should be replaced.

- Panel P-1 Circuit 14B - Wiring failed test - Should be replaced, reading was 8 and minimum should be 1k.
- Panel P-2 Circuits 1 and 3 - Wiring failed test - Should be replaced, reading was 50 and minimum should be 1k.
- Panel P-2 Circuit 13 - Wiring failed test - Should be replaced, reading was 300 and minimum should be 1k.
- Panel P-2 Circuit 15B - Wiring failed test - Should be replaced, reading was 80 and minimum should be 1k.
- Panel P-2 Circuit 19 - Wiring failed test - Should be replaced, reading was 90 and minimum should be 1k.
- Panel P-2 Circuit 8 - Wiring failed test - Should be replaced, reading was 80 and minimum should be 1k.

Item 5 of Truland's report listed specific problems that were discovered during the survey and recommendations for correcting or eliminating the problems.

GHT concurs with the recommended corrections in this item.

f. Electrical Systems-Noted Possible Code Deficiencies

- The electrical system generally is in conformance with all electric codes except for the main service equipment. This needs to be modified to protect the incoming feeder and to not exceed 125% of the transformer capacity as required by code.

5. PLUMBING CONDITIONS: ANALYSIS, CAPACITIES AND CODE COMPLIANCE

The building is a three-story house that was converted into an office/museum occupancy which includes a basement for mechanical systems, storage and a residential apartment. The existing plumbing systems consist of sanitary and storm sewers, domestic hot and cold water service.

The original design documents were not available for review. Our observations regarding these systems were as follows.

a. Domestic Cold Water System:

- The building has an existing 3/4-inch domestic cold water service. The 3/4-inch cold water service is located in the basement and is fed from the WSSC water main located on Oxford Road. The existing 3/4-inch domestic water service is not equipped with a backflow preventer. The existing 3/4-inch water main supplies the existing building plumbing fixtures, however, various materials were noted, i.e. galvanized steel and copper piping. The domestic water system was last upgraded in the 1970's and the early 1980's and there is a possibility that lead copper joints may exist. The main hot and cold water distribution system is located in the basement ceiling.
- The existing 3/4-inch domestic water service has a capacity of approximately 15 gallons per minute (gpm). It appears that the existing domestic water service has adequate capacity for the current number of plumbing fixtures being served. The water pressure noted was approximately 40 pounds per square inch (psi). This pressure appears to be adequate to serve the plumbing fixtures in the building.
- There is a 1/2-inch cold water makeup feeding the HVAC system with an antiquated backflow prevention device. The backflow preventer appears to be circa 1980 and should be replaced.
- The domestic water distribution takes place in the basement where it rises up to feed the various bathroom and kitchen groups. The system appears to be properly valved for bathroom groups or fixtures isolation purposes.

b. Domestic Hot Water System:

- The building has an electric water heater, which generates general use hot water for the plumbing fixtures. The domestic hot water system does not have a recirculating pump.
- The electric water heater is located in the basement floor within a mechanical room. The electric water heater appears to be fairly new and has a 52 gallon capacity, with a 4.5 KW electrical connection. This water heater was recently installed and should have approximately 4 to 5 years of life expectancy.

c. Sanitary Waste and Vent System:

The building is equipped with a sanitary waste and vent system. The sanitary system is connected to the city sewer. The sanitary waste and vent system is composed of cast iron hub-and-spigot system and also galvanized screwed pipe and fittings. However, the system was installed in the early 1900's, and therefore, it has reached its life expectancy.

d. Toilet Rooms:

There are toilet rooms on each floor, with the exception of the third floor. Several of these are no longer in service, and one of the toilet rooms on the second floor is abandoned with most of the plumbing fixtures removed and the plumbing rough-ins capped off. Plumbing fixtures are generally in fair condition, however, they are antiquated. It appears that the plumbing fixtures that are still in service have been well maintained, none of which are water saver fixtures. The existing plumbing fixtures are not handicapped accessible.

e. Storm Drainage System:

The building is equipped with a positive storm drainage system with diverters and downspouts. The downspouts are discharged as surface runoff. The diverters and downspouts appear to be in good condition.

f. Fuel Oil System:

The site is equipped with a 1,000 gallon underground fuel oil storage tank. The fuel oil storage tank is currently feeding the space heating induced-draft hot water boiler located in the boiler building on the northwest corner of the site. There is very little information regarding the condition and installation and composition of the underground fuel oil storage tank. However, we were able to determine that the 1,000 gallon fuel oil storage tank was installed in 1978. It appears that the fuel oil tank may be a steel tank, without secondary containment.

g. Plumbing System-Noted Possible Code Deficiencies

- The domestic cold water system appears to have been installed in accordance with the codes in force during the installation period of this system.
- The domestic cold water system is suspect of having lead solder joints. The current WSSC code prohibits the use of lead solder, however, 95/5 solder is now acceptable.
- The domestic hot water system appears to have been installed in accordance with the codes in force during the installation period of this system.

- The domestic hot water system is suspect of having lead solder joints. The current WSSC code prohibits the use of lead solder, however, 95/5 solder is now acceptable.
- The visible portions of the sanitary waste and vent system appear to be in compliance with the current code requirements.
- The storm water system is comprised of gutters and downspouts and appears to be in compliance with code.
- Currently, the EPA requires that underground fuel oil storage tanks are equipped with secondary containment, preferably a double wall tank. Such installations shall contain at least two monitoring wells for product leak testing within the surrounding soils.
- Underground fuel distribution systems are required to be piped using double wall piping in conjunction with leak detection monitoring devices.
- The fuel oil storage tank fill spouts are required to be equipped with a spill containment chamber, thus preventing fuel oil spillage directly onto the finished grade.

Photographs taken in 1996/1997 for the electrical and mechanical equipment sections of this report and planned as illustrations on pages 305 through 317 were unavailable at the time of printing; so these pages are missing from the historic structure report.

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6. FIRE DETECTION/SUPPRESSION, SECURITY SYSTEMS: ANALYSIS, LIMITATIONS AND REQUIREMENTS

a. Fire Alarm System:

The existing fire alarm system is a Pyrotronics "System 3" system consisting of manual pullstations, bells and smoke detectors throughout the building. The system meets all code requirements for coverage. There are no ADA strobes at the bell locations; however, since visitors are escorted by park rangers at all times, the requirement for these can probably be waived.

The system was tested in February and March of 1996 and was found to be in good condition.

b. Security System:

The entire building is protected by a modern security system both inside and outside consisting of intrusion proximity detectors which are monitored at a remote location. This system appeared to be fairly new and was in good condition.

c. Fire Protection:

The building is currently not protected with an automatic fire sprinkler system.

With the building construction completed circa 1896 as a residence, fire protection was not required. however, with the current classification as an assembly use building, fire protection will be required.

d. Life Safety-Noted Possible Code Deficiencies

- In accordance with the National Park Service design criteria, this structure is required to be fully sprinklered.
- This code requires a fire alarm system, emergency lights and exit signs. At this time, the only item missing is the exit signs which, again, might be able to be waived since visitors are always accompanied by park rangers when in the building.

7. COMPLIANCE WITH REGULATIONS

For a complete discussion of the existing conditions regarding the Americans with Disabilities Act, building codes and life safety requirements, hazardous materials and energy conservation please the appropriate sections in Part 2 of this document.

PART 2. TREATMENT AND USE

PART 2. TREATMENT AND USE

A. Ultimate Use: Current Management Plan Impact and Recommendations

Many of the recommendations established in the Historic Furnishings Report (HFR) prepared by the Harpers Ferry Center in 1983 (See Appendix C) remain valid and should continue to be implemented. Exceptions and additions to the HFR recommendations are discussed in the following sections.

It would be best to continue to limit tour sizes to 15 as recommended in the HFR. If larger groups must be accommodated, additional guides should be added, or the group broken down into smaller units each with its own guide. Given the inherent deficiencies of the structure regarding life safety, all visitors to the house should always be accompanied by a guide. Station interpretation, which is also discussed in the HFR, is a less desirable alternative since visitors may not always be in the presence of a guide.

As noted in the HFR, it is especially important for all NPS and volunteer staff to be familiar with the fire evacuation plan and the GWMP Disaster Plan.

HFR recommendations regarding environment, although established more than ten years ago, mesh well with the current thinking that the interior environment can be allowed to float with exterior environmental conditions with moderation of the spikes in temperature and humidity.

Recommendations regarding light, dust, insects/rodents, and conservation considerations all remain valid and should be followed.

The recommendations regarding fire and security require some revision. A fire sprinkler system is strongly recommended in addition to the other recommendations of the HFR. Since the house is no longer used as NPS quarters, the security system is in use. This is important since there is no longer anyone present in the house overnight.

B. Recommendations for Treatment

1. Architectural

It is the intent of the Recommendations for Treatment to provide guidelines for the rehabilitation of the Clara Barton House that will ensure the long term survival of the building, its significant historic materials and features, and its contents. At the same time, the Recommendations for Treatment recognize the program needs of the National Park Service, the physical constraints of the existing building, and the dictates of modern building codes and accessibility laws.

Depending upon an areas determined level of significance, the treatment recommendations are consistent with the Secretary of the Interior's Standards for Restoring, Preserving or Rehabilitating

Historic Buildings. The overriding philosophy of the Recommendations for Treatment is the retention of the maximum amount of historic fabric possible, the repair of all historic materials that have a reasonable remaining service life, and the accommodation of program needs through supplementing, rather than removing the historic fabric.

Exterior:

Condition:

The building envelope is in generally good condition. With the repairs made to the roof in the fall of 1996, the building is generally weather tight, however, some minor roof related problems remain. On the back side of the false gable at the front of the building some soldered seams are beginning to crack, a diverter has come loose on the central hipped roof, and there is an open flat seam joint between the standing seam and flat metal on the front low gable roof.

The mortar joints in several of the chimneys are deteriorating and the sealant on the flashing of several of the chimneys is failing (see Figure 106).

On the front side of the parapets that conceal the shed roofs, the flashing is turned up 2½" from the horizontal and sealed at the top with sealant without being turned back into a reglet. The sealant here is failing and will allow water to get in behind the flashing (see Figure 104).

The varnish on central flagpole is peeling.

Recommendations:

The cracks and open joints should be re-soldered, and the broken diverter reattached.

Deteriorated mortar joints should be raked back to a depth of ¾ of an inch and new mortar installed matching the color, composition and joint profile of the existing sound joints.

Deteriorated sealant should be removed and replaced.

The deteriorated sealant in the flashing on the front parapets should be removed and replaced.

Peeling varnish on the flag pole should removed, the remaining surfaces cleaned and new varnish applied.

Condition:

The historic siding is generally in good shape, however, where siding is in close proximity to the roof, especially on the clerestory walls, and on the front elevation just above the porch, deterioration is accelerated. Here, some siding boards are split and some have become punky, especially where the end-grain is exposed (see Figure 96). At the front elevation of the house, the first floor siding is sheltered under the porch where it is protected from the weather, however, this paint is peeling. This indicates that either the surface was not well prepared prior to repainting, and/or that water is getting into the wall from above. Much of the paint on the siding is deteriorated and mildewed (see Figure 95).

Recommendations:

Deteriorated wood should be repaired. Small cracks and splits can be filled with sealant, larger cracks epoxy filler. Wood that has begun to deteriorate can be consolidated with an epoxy consolidant, or replaced to match. Wood that is in close proximity to a horizontal surface, such as a roof, will need continuing maintenance.

The entire building should be repainted. Proper preparation is essential for a durable paint job. The existing paint should be scraped down to sound layers and cleaned to remove dirt and mildew. Areas of bare wood should be primed with an alkyd primer and two layers of fresh paint applied.

The junction of the porch roof and the front elevation is poorly detailed and presents a difficult flashing condition. This area should be inspected for potential leaks that may be causing the deterioration of the paint on the back wall of the porch. After any leaks have been repaired, the wall should be repainted as described above.

Condition:

The juncture of the porch roof and the front elevation lacks any kind of flashing other than sealant. Window sills and trim are weathered and deteriorating, and sections of siding have had to be replaced.

The porch roof deck was resurfaced with granular surfaced modified bituminous roofing in 1994, however, the porch structure below is showing signs of leakage. Large areas of paint are peeling, although the visible wood members appear to remain in good condition.

The bases of the porch columns are beginning to deteriorate where they rest on the concrete porch slab.

Recommendations:

The front porch with its wood columns and balustrade is an inherently high maintenance structure. This, coupled with the design problems associated with having the roof at the level of the second floor window sills, will make for ongoing maintenance demands. Areas of water penetration must be addressed first. As noted above, leaks at the junction of the porch roof and the front wall must be identified and repaired. This is true for other possible areas of water penetration through the porch roof.

When all the leaks have been identified and repaired, the deteriorated paint should be removed and wood members inspected for deterioration. Wood repairs and repainting should be executed following the guidelines listed above for the wood siding.

Because the column bases are in direct contact with a horizontal masonry surface, they will tend to deteriorate more rapidly than other porch components. They must be kept painted, and replaced when deteriorated beyond repair.

Condition:

The pressure treated wood treads and risers on the porch steps are beginning to deteriorate.

Recommendation:

The porch steps should be replaced with new pressure treated wood steps.

Condition:

An isolated portion of the edge of the porch slab is crumbling.

Recommendation:

This appears to be an isolated condition. It should be monitored, but no immediate repairs are required.

Condition:

There is deterioration at the window/door sill on the third floor front balcony and there is a small area of ponding on the deck of the balcony. The paint on the balcony balustrade is peeling.

Recommendations:

Like the roof of the main porch, the balcony deck presents a difficult flashing condition. As a result, water has been able to penetrate into the ceiling of the library (Room 201) and the sill of the access door/window to the balcony is deteriorating. The leak has been repaired, but the window sill and balustrade needs to be scraped, painted and repaired as described above for the wood siding.

Interior:

In 1983 the Harpers Ferry Center of the National Park Service prepared a Historic Furnishing Plan for the Clara Barton House. Since that time, this document has served as the management plan for the operation of this site. It has guided the restoration and furnishing of the rooms that have been put on exhibit. By examining the available historic documentation, including diary entries, correspondence, and photographs, recommendations were made for furnishing the rooms that were determined to be important to the interpretation of the house.

Considerable efforts to repair, restore and reconstruct the interior of the Clara Barton House have already been made. Today, many of the rooms in the house appear much as they did in 1897 (see Drawings 6-9, Conjectural 1897 floor plans, Drawings 14-17, 1996 floor plans, and the Inventory of Significant Spaces). Most of the rooms identified in the plan for the first round of display have been completed and put on exhibit. Only two rooms from this list, a bedroom (Room 211, Dr. Hubbell's Bedroom) and Clara Barton's Sitting Room (Room 212) remain closed to the public awaiting restoration and reconstruction. In addition the report recommended exhibiting the Kitchen (Room 111) and the Bathroom (Room 209) as soon as possible, and Rooms 201, 203, 203A, and 218 when they were no longer being used as NPS quarters.

While it would be desirable to add additional rooms to those currently on exhibit, adding the rooms listed above would force the Park Service to perform work that is based, at least in part, on conjecture. This is contrary to NPS policy. There is no conclusive documentation of the appearance of most of these rooms. Some rooms, such as the Library Suite (Rooms 201, 203 and 203A) have undergone considerable alteration, while the bathroom and kitchen have lost all of their historic fittings.

While exhibiting these rooms will contribute to an understanding of what life was like at the house during the period of interpretation, the NPS will need to make a policy decision regarding the extent to which they are willing to engage in conjectural work.

The interior of the house is in generally good condition and requires only regular maintenance.

Condition:

Many of the original board partitions have been covered with fiberboard. While this does not pose a threat to the board partitions, it does substantially alter their appearance.

Recommendation:

In exhibit rooms such as room 215, original board partitions that have been covered with fiberboard should be restored to their original condition. In rooms that are not on display to the public, the fiberboard may remain in place.

Condition:

Most of the wood trim throughout the house has been painted.

Recommendation:

Paint analysis should be conducted to help determine the sequence in which the trim was installed. This may help to determine original paint colors as well as which types of trim are original to the 1891 construction and the 1897 renovation. The original paint scheme should be restored.

Condition:

Staining from a roof leak can be found at the outside wall of Room 215 between the two windows. While the leak has been repaired, a section of the ceiling and a large section of the wall are water stained from this leak.

Recommendation:

Staining should be removed either through cleaning or by repainting the room.

2. Structural: Code Compliance through Repair/Replacement/Retrofit

Structurally, aside from the code live load requirements, there are no structural repairs required. No structural deterioration or structural distress was observed during this survey. However, the existing wood header on the first floor beneath the stairs requires removal and replacement.

3. Mechanical, Electrical and Plumbing: Code Compliance through Repair/Replacement/Retrofit

Heating, Ventilating and Air-Conditioning - Alternatives:

The following alternatives are identified as potentially feasible to implement for the Clara Barton House:

- **Option A** - Complete renovation of structure and HVAC systems to provide true museum quality space.
- **Option B** - Addition of cooling and heating to entire interior of building without renovation of historic fabric of structure.
- **Option C** - Selective addition of air conditioning for office use only; addition of fan-forced filtered/heated/ducted outside air supply for remainder of building; fixed windows (not operable).
- **Option D** - Selective addition of air conditioning for office use only; addition of fan-forced unfiltered/unheated air via fans at each window for remainder of building; addition of various water-based heating terminals throughout building.
- **Option E** - Selective addition of air conditioning for office use only; use of operable windows to allow introduction of unfiltered/unheated air (no fans); fan-forced outdoor air ventilation of top floor to reduce temperature; fan-forced outdoor air ventilation of basement to reduce moisture; addition of various water-based heating terminals throughout building.
- **Option F** - Same as option E except without ventilation of basement.
- **Option G** - Same as option E except without ventilation of top floor.
- **Option H** - Same as option E except without ventilation of top floor or basement.
- **Option I** - No building cooling; heating only via various terminal devices.

Option	Relative Building First Cost	Expected Exhibit Space Comfort	Expected effect on Exhibit Life	Effect on Historic Fabric:	
				During Construction	Long-term
A	Very High	Excellent	Excellent	Poor	Good
B	High	Good-Excellent	Very Good	Fair	Very Poor
C	High-Moderate	Fair-Poor	Fair-Poor	Fair-Good	Poor
D	Moderate-Low	Fair-Poor	Fair-Poor	Good	Poor
E	Moderate-Low	Poor	Fair-Poor	Good	Fair-Poor
F	Low	Poor	Fair-Poor	Good	Fair-Poor
G	Low	Poor	Fair-Poor	Good	Fair-Poor
H	Very Low	Poor	Poor	Very Good	Poor
I	Minimal	Poor	Poor	Very Good	Poor

Heating, Ventilating and Air-Conditioning-Recommendations:

The Clara Barton House is a historic structure that derives much of its character from the fabric of the building itself. Major disruptions to that fabric would destroy this character.

The operation of the existing facility has three distinct segments:

- Office space.
- Display space.
- Storage space.

Because the office space requires relatively long-term occupancy, we recommend that it be both heated and cooled.

While the ideal environment for the display area would be that of a museum, such space is not truly feasible in a historic structure without major demolition and (then) replication of the historic fabric. We believe that enhancing the current operational schemes is the proper solution.

Therefore, we recommend that Scheme E as described above, be incorporated into the building.

Electrical:

- Replace all circuit breakers in the existing panels.
- Replace wiring for Circuit 14B in Panel P-1.

- Replace wiring for Circuits 1 and 3 in Panel P-2.
- Replace wiring for Circuits 13, 15B, 19 and 8 in Panel P-2.
- Replace old non-grounding type receptacles with new grounding type 20A.
- Provide proper ground connections for all receptacles.
- Relocate existing track light so it is mounted over outlet box correctly.
- Provide new box connectors on cables on which existing box connectors are broken or missing.

Plumbing:

- A new domestic lead-free copper hot and cold water system should be installed in accordance with the latest 1995 International Plumbing Code.
- A new state-of-the-art backflow preventer should be installed on the HVAC cold water makeup feed to prevent the possibility of cross-contamination of the drinking water system.
- New sections of cast iron sanitary waste and vent piping should be provided to replace sections that are currently experiencing leaks.
- New spill containment and product monitoring devices should be installed in accordance with the latest EPA requirements.

4. Fire Detection/Suppression and Security System: Comparative Analysis of Systems to meet the needs of the Clara Barton National Historic Site

A new fire protection water service will be required equipped with a double check valve assembly in accordance with the current NFPA and local code requirements. The fire sprinkler system will be classified as a Light Hazard Occupancy, and will be hydraulically calculated in accordance with NFPA-13. The sprinkler system will be designed following the Area/Density method with a most remote area of 1500 square feet and a density of 0.10 gallons per minute per square foot. The system shall have a maximum head spacing of 225 square feet per sprinkler head. The fire sprinkler valves and alarms shall be located in the basement. Sprinkler risers shall be routed throughout the building with respect to the historical nature of the structure, possibly utilizing the existing chimneys as common shaft to route the sprinklers vertically up the building.

Installation of a new sprinkler system will be a major disruption of the historical fabric. Sprinkler risers will need to be vertically routed through the building, which may require trenching of walls and ceilings. Horizontal branch piping will also need to be routed through existing fabric and plaster ceilings to provide sprinkler protection in every room of the building.

5. Compliance with Regulations

a. Americans With Disabilities Act

The Americans With Disabilities Act (ADA) has specific provisions for dealing with historic buildings. Section 4.1.7(1)(a) states that "Alteration to a qualified historic building or facility shall comply with 4.1.6 Accessible Buildings: Alterations, the applicable technical specifications of 4.2 through 4.35 and the applicable special application section 5 through 10 unless it is determined in accordance with the procedures in 4.1.7(2) that compliance with the requirements for accessible routes (exterior and interior), ramps, entrances, or toilets would threaten or destroy the historic significance of the building...in which case the alternative requirements in 4.1.7(3) may be used for the feature.

For buildings subject to Section 106 review (this includes the Clara Barton House), ADA states that "the Federal agency with jurisdiction over the undertaking shall follow the section 106 process. If the State Historic Preservation Officer or Advisory Council on Historic Preservation agrees that compliance with the requirements for accessible routes (exterior and interior), ramps, entrances, or toilets would threaten or destroy the historic significance of the building or facility, the alternative requirements in 4.1.7(3) may be used for the feature."

Section 4.1.7(3) sets out the minimum requirements for historic preservation. These are:

- (a) At least one accessible route complying with 4.3 from a site access point to an accessible entrance shall be provided.
- (b) At least one accessible entrance complying with 4.14 which is used by the public shall be provided.
- (c) If toilets are provided, then at least one toilet facility complying with 4.22 and 4.1.6 shall be provided along an accessible route that complies with 4.3. Such toilet facility may be unisex in design.
- (d) Accessible routes from a accessible entrance to all publicly used spaces on at least the level of the accessible entrance shall be provided. Access shall be provided to all levels of a building or facility in compliance with 4.1 whenever practical.
- (e) Displays and written information, documents, etc., should be located where they can be seen by a seated person. Exhibits and signage displayed horizontally (e.g., open books) should be no higher than 44 in above the floor.

As a National Historic Landmark, it is likely that Section 4.1.7(3) will be applicable to the Clara Barton House. Even with these minimum requirements, compliance is not easily achieved. An accessible route from the parking area up to the front porch is already in place providing an accessible route up to the front entrance, and satisfying the requirements of 4.1.7 (3)(a).

Section 4.1.7 (3)(b) requires at least one accessible entrance. The front entrance is the only entrance to the main floor of the building, and it fails in several areas. The main entrance to the house is a double leaf door. Section 4.13.4 Double Leaf Doorways, requires that one leaf be the active leaf, that it provide at least a 32 inch clear opening, and that it have adequate maneuvering clearances. In addition, the threshold cannot exceed ½" in height (4.13.8) and operating hardware must be "easy to grasp with one hand and...not require tight grasping, tight pinching, or twisting of the wrist to operate" (4.13.9). Door opening force must meet the requirements of BOCA. Except for maneuvering clearances and threshold height, the existing door fails.

While the entrance fails to meet these requirements, site management feels that the deficiencies can be addressed programmatically. Because access to the building is controlled by a ranger, no one other than the ranger typically operates the door, and since all visitors are accompanied through the house by a ranger, assistance will always be available to the visitors. This assistance would include unlatching the door and opening both leaves of the front door when required.

Section 4.1.7 (3)(c) requires an accessible toilet be provided if toilets are provided. The existing toilets in the house are not accessible and there is no readily achievable means of providing an accessible facility on site. In the short term, this can be addressed by denying all visitors access to the site's toilet facilities. In the long term, toilet facilities may be provided in a new visitor center constructed on the site.

Section 4.1.7(3)(d) mandates that, at a minimum, all publicly used spaces on the level of the accessible entrance be accessible. Once through the main entrance, the center hall provides a 10 foot wide corridor over nearly the full length of the building. All exhibit spaces and the gift shop open off of this space. One obstacle to accessibility to and from the center hall is the thresholds at each of the doorways that opens off the hall. The heights of the thresholds vary, sometimes even along the length of an individual threshold, and some exceed the ¾" maximum height by as much as ¼" (Section 4.1.6 (3) (d) (ii)). A second accessibility problem relates to door width into the visitor orientation room. This door does not provide the requisite 32 inch clear opening. Most of the remaining single doors into the exhibit rooms also do not provide a 32" clear opening. However, the exception to Section 4.13.5 allows for a clear opening of as little as 20 inches where "full passage" is not required. Since all visitors are prohibited from entering these rooms they can be considered to be doors that do not allow full passage.

As with the front doors, the site management feels that these first floor accessibility issues can be handled programmatically. Since all visitors are escorted through the house by a ranger, assistance can be provided when crossing the thresholds. The door width to the visitor orientation room, while not meeting the letter of the Act, have not prohibited the wheelchair bound visitors who regularly visit the site from accessing this room.

Section 4.1.7 (3)(e) concerns displays and exhibit materials. Exhibits and displays on the first floor of the house are generally in compliance. Any that are not should be modified as required.

Other considerations:

The porch currently has no railing. At a minimum, a curb should be installed to prevent wheelchairs from rolling over the edge. Ideally, a guardrail should be installed.

Wood flooring is considered to be an ideal material from the perspective of accessibility while rugs and carpeting can be an impediment to accessibility. Both wood flooring and carpeting are found throughout the House. Where rugs or carpeting are used they should be securely attached, have a firm cushion or no cushion, have a maximum pile of ½" and have trim along the entire exposed edge. On the other hand, waxed and polished wood floors, where not covered with rugs or carpeting, may not be considered to provide a slip resistant finish.

As a component of the fire detection system, audible alarms have been installed throughout the house. Section 4.1.3 (14) states that "If emergency warning systems are provided, then they shall include both audible alarms and visual alarms complying with 4.28. The general provisions of Section 4.28 go to say that "Alarm systems required to be accessible by 4.1 shall comply with 4.28. At a minimum, visual signal appliances shall be provided in buildings and facilities in each of the following areas: restrooms and any other general usage areas (e.g. meeting rooms), hallways lobbies and any other area for common use.

Under these provisions, either the audible alarm must be disconnected so that no emergency warning system is provided, or visual alarms installed in the public areas. Since it is not recommended that the existing audible alarm be disconnected, the discrete placement of visual alarms should be investigated. In lieu of this, the argument could be made that visual alarms are not necessary because visitors to the house are always in the presence of a guide who can make the hearing impaired aware of the emergency situation.

b. Building Code and Life Safety:

As a historic building constructed before the widespread adoption of building codes, the Clara Barton House is deficient in many areas of The BOCA National Building Code/1993, the applicable building code for Montgomery County. It will be virtually impossible to meet the Park Service's objective of bringing the building into compliance with code requirements without seriously compromising the historic character and integrity of the building.

The code does have provisions to accommodate historic structures. Section 3406.1 states "The sections of this code relating to construction, repair, alteration, addition, restoration and movement of structures shall not be mandatory for existing buildings and structures identified and classified by the federal, state or local government authority as historic buildings where such buildings are judged by the code official to be safe and in the interest of public health, safety and welfare regarding any proposed construction, alteration, repair, addition and relocation."

While this provides a great deal of latitude in applying the code, upgrading the Clara Barton House so that it can meet contemporary code requirements will conflict with the objectives of preserving the historic character and fabric of the building. Following is an evaluation of the Clara Barton

House in accordance with the requirements of the building code and recommendations for how to address deficiencies.

Occupancy/Use Group: Section 302.1 defines the classification for building occupancy types. In establishing a classification for occupancy for the Clara Barton House, Assembly (Section 303.0) most closely matches the current and proposed uses for the building. These include office, museum and book sales. Museums are further classified as Use Group A-3 (Section 303.4).

General Building Limitations: This chapter controls the height and the area of new construction. According to the provisions of section 503.3, the basement is considered as a story above grade, making the building four stories tall for the purposes of code evaluation. The basement, first and second floors are approximately 4,000 square feet each while the third floor is approximately 1000 square feet.

Table 503 of the code gives the allowable height and area for buildings of different construction types (see construction type below) and occupancy/use groups. Evaluated by this criteria, the Clara Barton House would be allowed 4,200 square feet per floor, but would not be allowed to exceed one story in height. With sprinklers, the allowable floor area increases to 8,925 feet, but the one-story limitation remains unchanged.

Construction Type: According to section 606.1, the Clara Barton House is an unprotected combustible building and is classified as Type 5B construction.

Fire Protection Systems: According to Section 904.2 Use Group A-3 buildings with a fire area exceeding 12,000 square feet requires a fire suppression system:

1. Throughout the entire story or floor level where the A-3 Use Group is located.
2. Throughout all stories and levels below the A-3 Use Group.

The fire area of the Clara Barton House, including the basement level exceeds the 12,000 square foot limit. Therefore, the first, second and third floors would require a fire suppression under number 1 above, and the basement under number 2. For a discussion of fire suppression systems see Part 2, Section B4 Fire Detection/Suppression and Security System.

Occupant Load

Analysis: Occupant load is not readily determined by the code. Section 1008.1.1 Actual Number, would provide the best guidance. It defines the occupant load as "The actual number of occupants for whom each occupied space, floor or building is designed." Since the maximum tour size has been set at 15, this number plus the number of NPS staff who will have offices in the building, plus visitors to the offices, plus participants in meetings being held in the building would provide reasonable number for a maximum occupant load. With a meeting and a tour in progress simultaneously, it is very possible that the total load will exceed 30. It is unlikely that occupant load will exceed 50.

Recommendation: This range of occupancy loads should be verified by confirming the tour size limit, determining the maximum number of staff that will have offices in the building and the maximum number of participants that will be involved in meetings in the building.

Egress

Analysis: Chapter 10 of the code is written to "control the design, construction and arrangement of building elements required to provide a reasonably safe means of egress from all structures".

Means of Egress is defined as "A continuous and unobstructed path of travel from any point on a building or structure to a public way." "A means of egress comprises the vertical and horizontal means of travel and shall include intervening room spaces, doors, hallways corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, horizontal exits, courts and yards."

Section 1006.2.2 specifically addresses the requirements for Assembly Buildings. It states in part that "Where there is a single main entrance, the entrance shall be capable of serving as the main exit and shall provide an egress capacity for at least one-half of the total occupant load. In addition to having access to a main exit, each level of an occupancy in Use Group A shall be provided with additional exits which shall provide a means of egress capacity for at least one-half of the total occupant load served by that level. In addition, Section 1010.0 requires two exits because this building has more than one story and travel distance is greater than 75 feet.

Recommendations: Two means of egress are required by code. The building currently has only one exit, and this is not served by an acceptable egress path. Using the provisions of Section 3406.1 it may be acceptable to have only this one exit provided that it is deemed to "be safe and in the interest of public health, safety and welfare". With the existing fire detection system, a new sprinkler system, and an emergency evacuation plan coupled with the small number of permanent building occupants and the fact that visitors are always escorted by a ranger, it may possible to make this argument.

If a second means of egress is deemed necessary or desirable, the exit would most likely have to be at the basement level. A stair enclosure from the second floor to the basement could be constructed by removing the floor structure of Rooms 208 and Room 109 and lining the resulting shaft with a fire rated assembly to enclose the stair. The stairs could exit through the existing doors on the northwest elevation. This scheme would result in the loss of original fabric, and the exit doors at the basement level would need to be modified. While this would help to mitigate the egress conditions in the house, it would not provide the required egress from the third floor.

Analysis: Section 1011.0 requires that direct access to exits be provided through continuous passageways...or corridors. In Use Group A buildings without a sprinkler system and with more than 30 occupants, corridors are required to have a 1 hour fire rating. Installing sprinklers in the building will eliminate the requirement for rated corridors. However, the Clara Barton House does not actually have corridors, the rooms on each floor either connect directly with each other, or they connect to the main hall. The main hall, in effect, becomes the passageway in the egress path. This complicates the egress picture because the configuration of the multi-story main hall meets the definition of an atrium (Section 404.0) and section 404.2 requires that "The atrium and all stories and floor areas connected to the atrium shall be equipped throughout with an automatic sprinkler

system...". Without an automatic sprinkler system, there is no way to meet either the requirements for an atrium space or the fire rating requirements for egress corridors.

Recommendations: The requirement for continuous passageways or corridors to the exits will again depend on an assessment under the provisions of Section 3406.1. If the center hall can be considered the corridor, and sprinklers are installed then, except for the stairway this requirement can be satisfied.

Analysis: Where stairways are part of the means of egress, they also require a 1 hour enclosure (Section 1014.11). Even with sprinklers, the unenclosed main stair running from the first to the second floor and the two stairways up to the third floor will not meet the enclosure requirements. In other respects, such as landing width, headroom, vertical rise, and treads and risers, the main stair is in conformance, however, the handrails and guardrails on the stairs fail to meet height (1022.2.2), baluster spacing (1022.2.3) or handrail grip size (1022.2.5) requirements. In addition, the risers on the third floor stairs are a fraction of an inch too high to meet code, however, this requirement is waved for existing stairs (Section 1014.6, Exception 7).

Recommendations: There is no way to provide a 1 hour enclosure for the existing stair without destroying its historic character. In addition the handrails and guardrails do not meet the current code requirements for these features. Because the stair and its components are prominent character defining features of the house, and bringing them into compliance would drastically alter their historic character, an attempt should be made here to apply Section 3406.1. Sprinklers will help to compensate for the lack of a rated enclosure and rangers would need to be vigilant when escorting tours through the house, keeping visitors back from the guardrails, and providing assistance to visitors who may need help negotiating the steps.

Analysis: The building currently has five doors that open to the exterior of the building. The main door opens off of the first floor on the northeast elevation of the building. The other four doors open, at grade, from the basement; one each on the southeast and southwest elevations and two on the northwest elevation. None of these doors meets the requirements for egress doors.

The only door that can even be considered to provide an exit is the main entrance on the northeast elevation of the first floor, however the width and the hardware on this door do not currently meet code requirements.

Section 1017.3 requires a minimum clear width of not less than 32 inches. In the case of double leaf doors "...a door opening [that] includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches." A single leaf of the main entrance currently provides approximately 24 inches clear.

Section 1017.4 states that "Door handles, pulls, latches, locks and other operating devices shall...be capable of operation with one hand and shall not require tight grasping, tight pinching or twisting of the wrist to operate." The current operating hardware on the main entrance door requires two hands to operate. The door should also be evaluated to determine how much force is required to open it.

If building occupancy remains below 50, it is acceptable to have egress doors that do not swing in the direction of egress, and, with occupancy below 100, panic hardware is not required.

Recommendations: The front doors are a character defining feature of the house. As such it is not possible to modify them to meet the clear opening width requirement without compromising their historic character. It would also be difficult to alter the hardware without an adverse effect. To avoid altering the door, it will be necessary to apply Section 3406.1. As with other egress conditions, the fact that all visitors are escorted through the house by a ranger helps to mitigate these deficiencies. Typically, only the ranger operates the doors and would be available to open both leaves of the door in an emergency situation.

Analysis: Section 1005.4 requires that the floors of all corridors and lines of means of egress shall have a slip-resistant surface. Since there are no fixed standards for determining slip-resistance it cannot be stated whether or not the exposed wood floors and stair treads found throughout the Clara Barton House can be considered to be slip-resistant.

Recommendations: Slip resistance can be achieved with rugs that are fastened to the floor, and many areas of the floor in the public spaces are already covered by rugs, however, there are many areas where the bare wood is exposed (most notably the stairways) that could become slippery. This would be especially true if a fire sprinkler system were activated and the floors became wet. Section 3406.1 would again have to be utilized to avoid having to alter the floors and stairs to provide slip resistance.

Analysis: Section 1005.5 calls for guardrails along all open sided walking surfaces more than 30 inches above the floor or grade below. The guard must be 42 inches in height and the balusters must be spaced so that a 4 inch sphere cannot pass through any opening. The front porch, which currently serves as the collection point for all visitors to the house, has no railing although the deck is more than 30 inches above the ground.

Recommendations: As prominent a feature as the porch is, it was constructed after the period of interpretation. Although the addition of a railing to the porch will alter its appearance, it will not affect the historic fabric of the house. A railing should be added to the porch.

Analysis: Section 1023.0 governs the need for exit signs. It states that "In all buildings, rooms or spaces required to have more than one exit or exit access, all required means of egress shall be indicated with approved signs..." There are no exceptions that are applicable to the Clara Barton House.

Recommendation: There are currently no Exit signs in the house and their addition could be considered to compromise the historic character of the spaces. Because the occupants of the building are primarily employees or visitors being escorted by a ranger, it may be possible, under Section 3406.1 to argue that it is not necessary to mark the exit(s).

Analysis: Section 1024.0 Means of Egress Lighting requires that "All means of egress in other than occupancies in Use Group R-3 shall be equipped with artificial lighting facilities to

provide...illumination continuously during the time that conditions of occupancy of the building require that the exits be available." Section 1024.4 further states that, "Means of egress lighting in all buildings, room or spaces required to have more than one exit or exit access shall be connected to an emergency electrical system...to assure continued illumination for a duration of not less than 1 hour."

Recommendation: The Clara Barton House currently has adequate egress lighting.

c. Hazardous Materials: Abatement

No testing for any hazardous materials was performed within the scope of this project. The topics discussed below are listed for informational purposes only. The only way to verify the presence of any hazardous materials is through inspection and testing.

Asbestos: Widely used after World War Two, asbestos was valued for its fire resistance. It was used in many building products including acoustical insulation, pipe insulation, duct and boiler insulation, plaster and taping compounds, as well as in roof, ceiling and flooring materials. Asbestos is most dangerous when inhaled, therefore the risk increases with the "friability" of the asbestos containing material.

The only known source of asbestos at the Clara Barton National Historic Site is in the paper used as backing for the fabric wall finish that was installed in Clara Barton's Bedroom (Room 113).

Risks from asbestos can be reduced by not disturbing materials suspected of containing the material. If any maintenance or repair work will require the removal or demolition of any materials that may contain asbestos, those materials should be tested. If testing reveals the presence of asbestos, the removal and disposal of that material should be handled by a contractor licensed to perform asbestos removal.

Lead: Lead, when inhaled or ingested is highly toxic. Particularly susceptible to lead poisoning are children and the unborn. Lead was a common ingredient in paint until the 1970s and was also used in piping and solder. Paints are no longer fabricated with lead and lead pipe has typically given way to galvanized and copper. Lead is still, however, a principal component of some types of solder.

While the paint at the Clara Barton House was not tested for lead, it should be assumed that historic paints contain lead. Even if the paint is not peeling, lead dust is generated every time painted sash or doors are opened or closed. Lead dust is too fine to be cleaned with a standard vacuum cleaner. Lead dust will pass through the vacuum bag and be redistributed throughout the room.

Lead may also be present in the drinking water. New copper water pipes were installed in the house by the Park Service. If water stands in these pipes, lead from some types of solder can leach into the water.

Lead testing is relatively inexpensive and would identify sources of lead in the building.

The greatest potential for exposure to lead at the Clara Barton National Historic Site is from the paint. Everyday exposure to lead dust

Radon: Radon is a naturally occurring colorless, inert, radioactive gas that can accumulate in the basements of buildings if it is present in the ground in sufficient quantities. The basement of the Clara Barton House would be particularly susceptible to radon infiltration because most of the basement floor remains exposed earth.

Radon testing is inexpensive and would establish whether this should be a concern.

Petroleum Products: Petroleum products are a potential source of ground and surface water contamination. The new fuel oil tank has the appropriate spill containment apparatus. However, the basement site of the original fuel oil tank could have been contaminated by a leak in the tank and the area around the filler pipe could have been contaminated by spills when the tank was filled.

d. Energy Conservation:

As a historic building dating from the end of the 19th Century, the Clara Barton House, like most of its contemporaries, was constructed without insulation. As such, it is not capable of meeting the modern energy conservation requirements of new buildings without significant modifications (See the R-value tables below). Some modifications, such as insulating wall and roof cavities have the potential to be highly destructive to the historic fabric of the building. Less destructive methods, such as blown-in insulation typically do not include a vapor barrier and can cause condensation inside the wall cavity. This has the effect of both decreasing the R-value of the insulation itself and promoting the deterioration of the wall framing and sheathing.

More appropriate methods for conserving energy include the installation of weather stripping on the doors and windows, the installation of historically appropriate storm windows, and the use of window shades to reduce solar heat gain.

Roof venting, radiant barriers located in the roof or roof sprays to provide evaporative cooling are all potentially less intrusive means of reducing heat gain through the metal roof.

Estimated R-values for Walls			
Wall Type	Typical Wall Locations	Wall Components	Approximate R-value
A	Rooms 112, 113, 114 and 213	<ul style="list-style-type: none"> • 7/8" German Siding • 1" Wood Sheathing • 2 x 4 Stud with 3½ Foil Backed Batt Insulation • Building Paper • Fabric and Paint 	R=19
B	Rooms 103, 105, 108, 109, 115, 116, 117, 118, 119, 203, 203A(?), 206, 207, 208, 211, 214, 215, 217 and 218	<ul style="list-style-type: none"> • 7/8" German Siding • 1" Wood Sheathing • 2 x 4 Stud with ± 4" air space • ± ¾ Plaster on wood lath or Gypsum Board 	R=4
C	Rooms 101, 111, 201, 209, 212, 301, 302, 303, 304 and 305	<ul style="list-style-type: none"> • 7/8" German Siding • 1" Wood Sheathing • 2 x 4 Stud with ±4" air space • 7/8" Beaded Board 	R=4.5
D	Rooms B-4, B-5 and B-6	<ul style="list-style-type: none"> • 1" Wood Board & Batten Sheathing • 2 x 4 Stud with 3½ Batt Insulation • ± ¾ Gypsum Board 	R=18.5
E	Rooms 104 and 204	<ul style="list-style-type: none"> • 1'-8 Brick 	R=4
F	Rooms B-1, B-3, B-4, B-6 and B-8	<ul style="list-style-type: none"> • ± 2'-0" Stone 	R=2
F	Room B-1	<ul style="list-style-type: none"> • 1" Wood Board & Batten Sheathing 	R=1.5

Estimated R-values for Roofs

Roof Type	Typical Roof Locations	Roof Components	Approximate R-value
A	Above Rooms 107, 203, 203A, 206, 207, 208, 209, 211, 213, 214, 215, 216, 217, 218	<ul style="list-style-type: none"> • Standing Seam Metal on Rosin Paper • 1" Wood Roof Deck • 5½" Air Space • ± ¾ Plaster on wood lath 	R=3.5
B	Above Room 303	<ul style="list-style-type: none"> • Standing Seam Metal on Rosin Paper • 1" Wood Roof Deck • 5½" Air Space • Fabric and Paint 	R=3
C	Above Rooms 301, 305	<ul style="list-style-type: none"> • Standing Seam Metal on Rosin Paper • 1" Wood Roof Deck • 7" Air Space • Fabric and Paint 	R=3
D	Above Rooms 301, 302, 304 and 305	<ul style="list-style-type: none"> • Standing Seam Metal on Rosin Paper • 1" Wood Roof Deck • 3½" Air Space • Fabric and Paint 	R=3

End of Part 2. Treatment and Use

APPENDICES

Appendix A Annotated Bibliography

Appendix A. Annotated Bibliography

Primary Sources

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Miscellaneous Barton correspondence and two Barton diaries, 1904 and 1910.

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Topographic, real estate and fire insurance maps of Glen Echo area.

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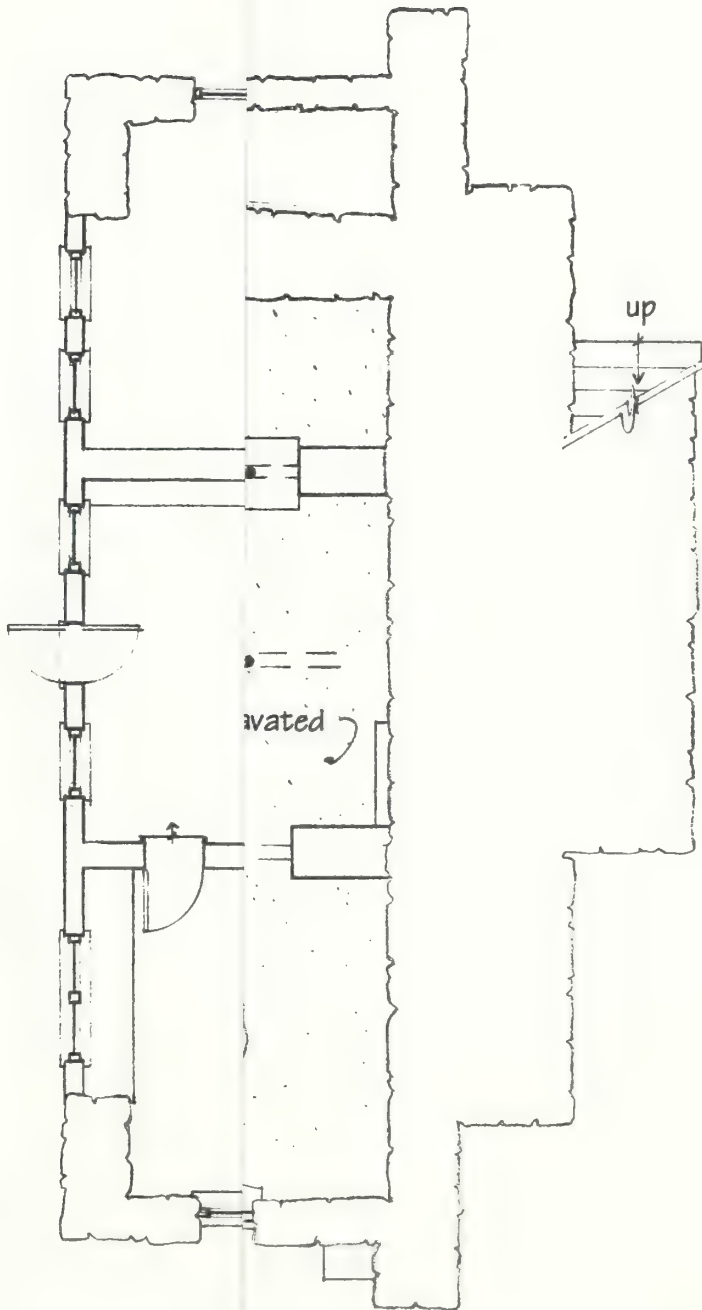
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Appendix B Schematic Floor Plans

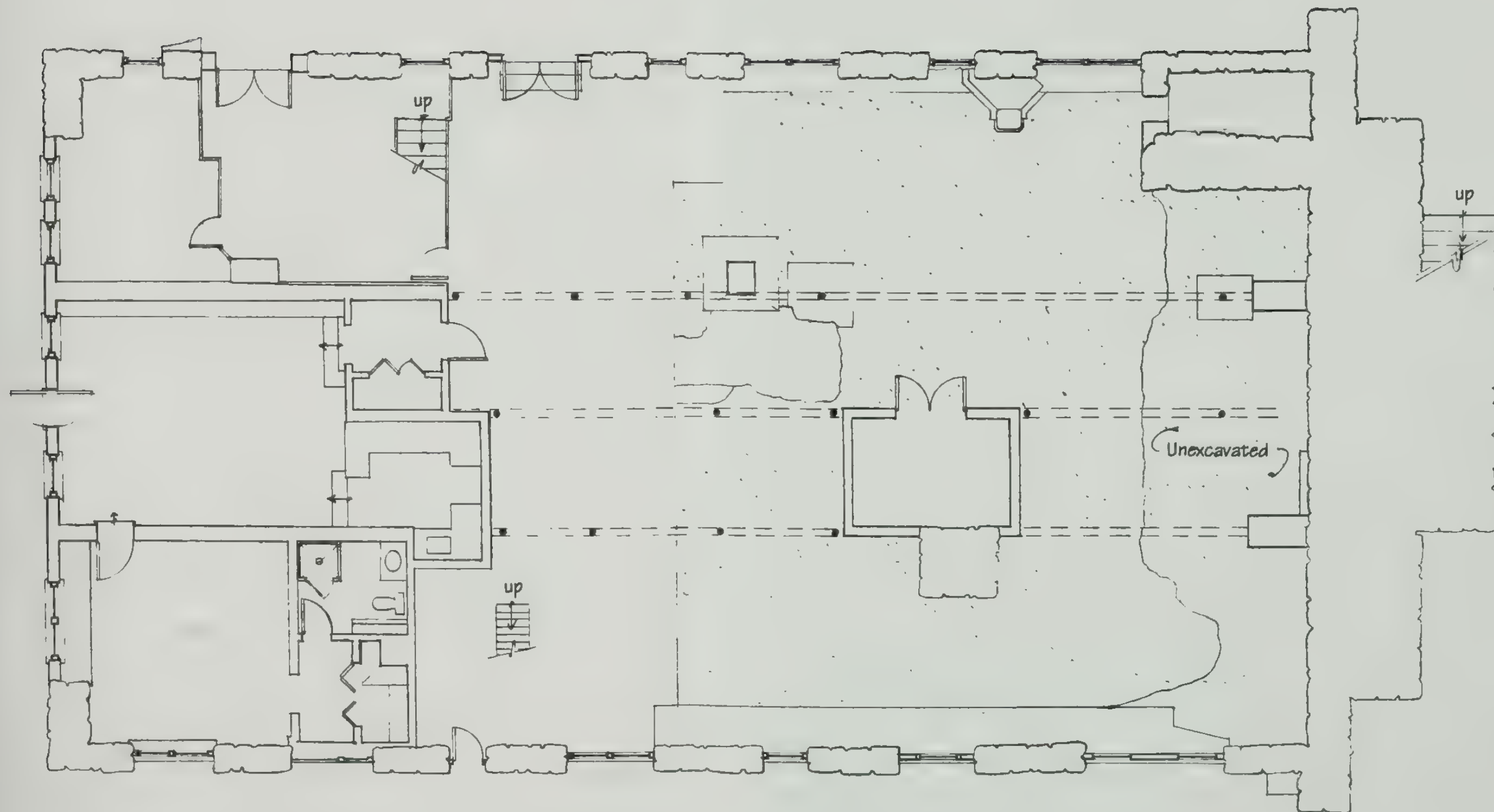


Clara Barton House Basement Plan

Approximate Scale: $\frac{1}{8}'' = 1'-0''$

8 6 4 2 0 4 8
Approximate Scale in Feet



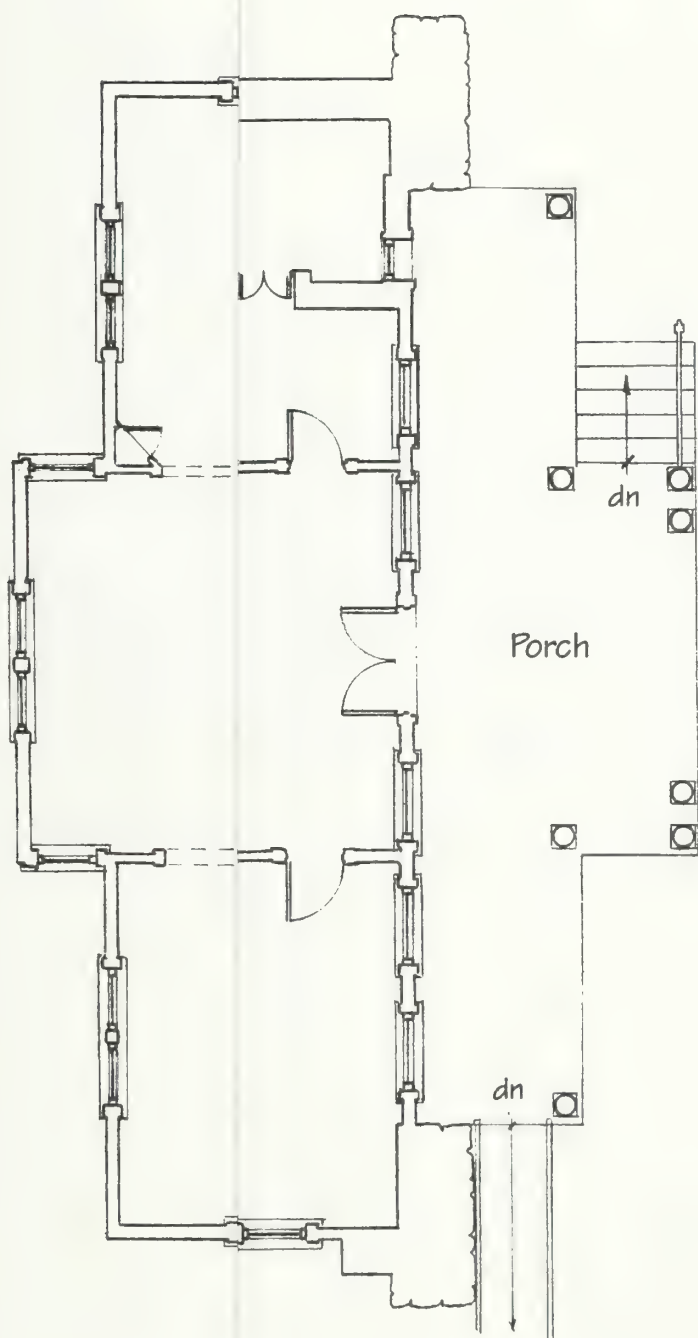


Clara Barton House Basement Plan

Approximate Scale: $\frac{1}{8}'' = 1'-0''$

8 6 4 2 0 4 8
Approximate Scale in Feet

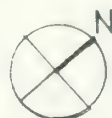


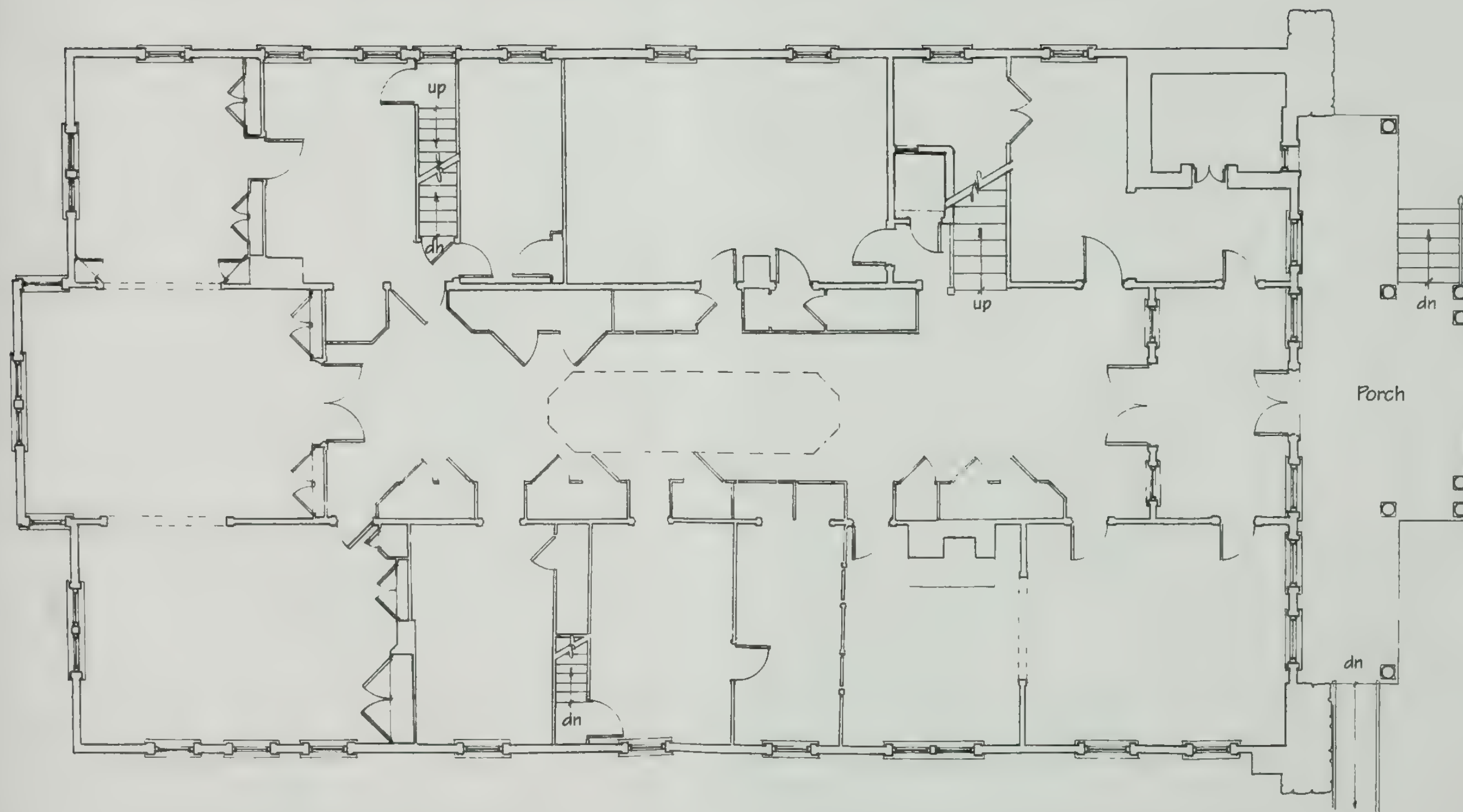


Clara Barton House First Floor Plan

Approximate Scale: $\frac{1}{8}" = 1'-0"$

8 6 4 2 0 4 8
Approximate Scale in Feet



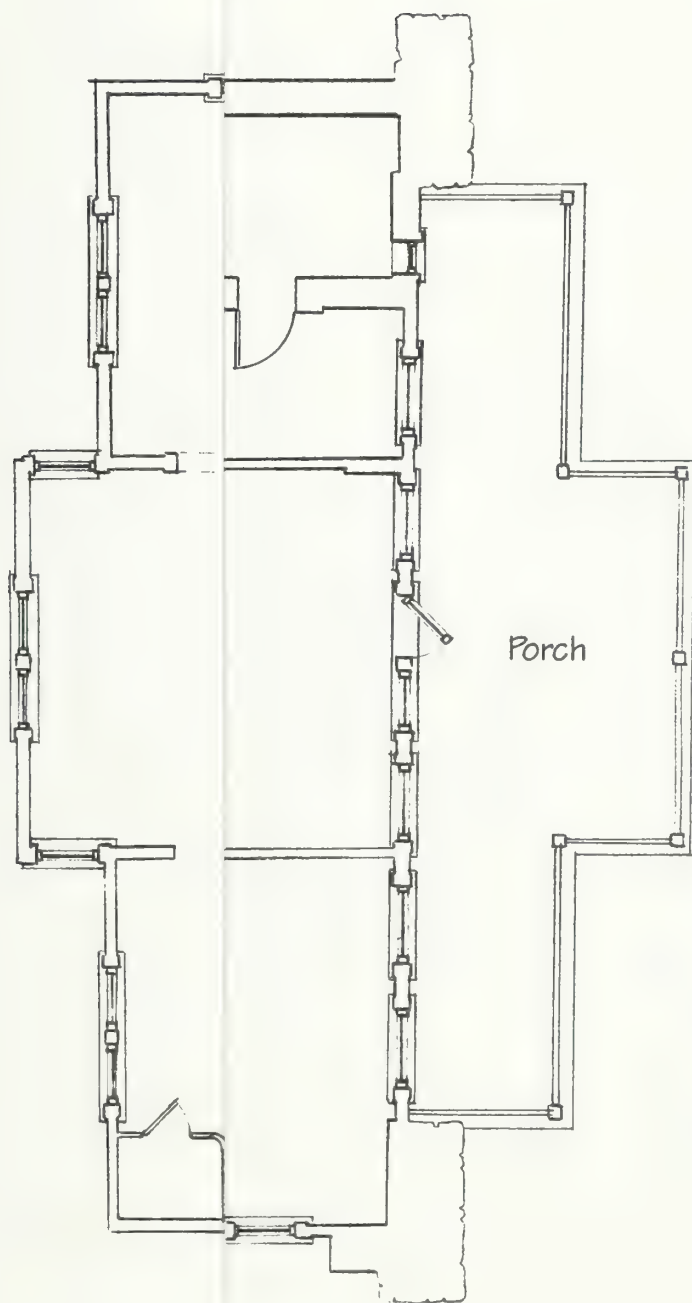


Clara Barton House First Floor Plan

Approximate Scale: $\frac{1}{8}" = 1'-0"$

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Approximate Scale in Feet



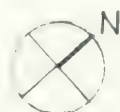


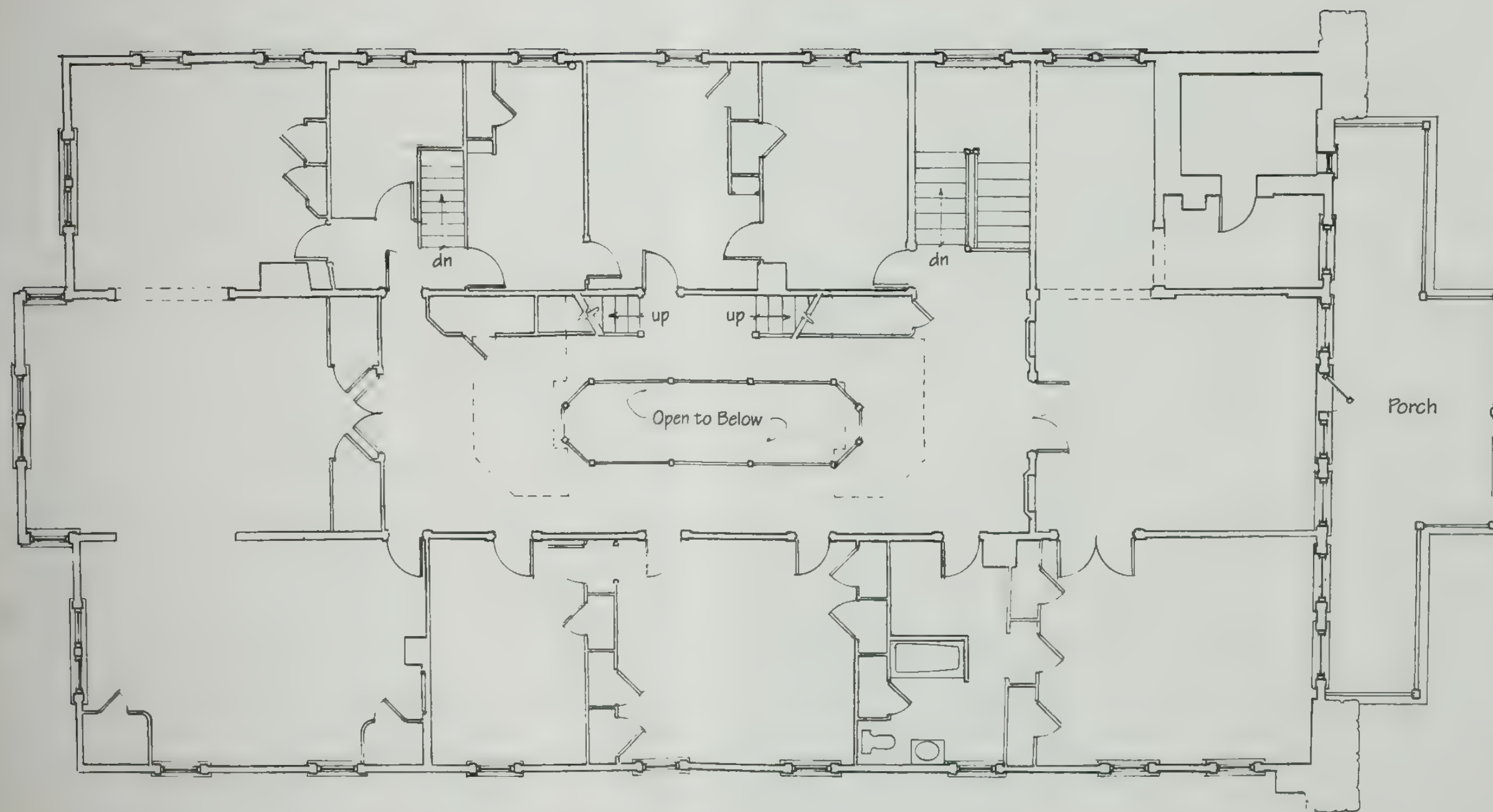
Clara Barton House Second Floor Plan

Approximate Scale: $\frac{1}{8}'' = 1'-0''$

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Approximate Scale in Feet





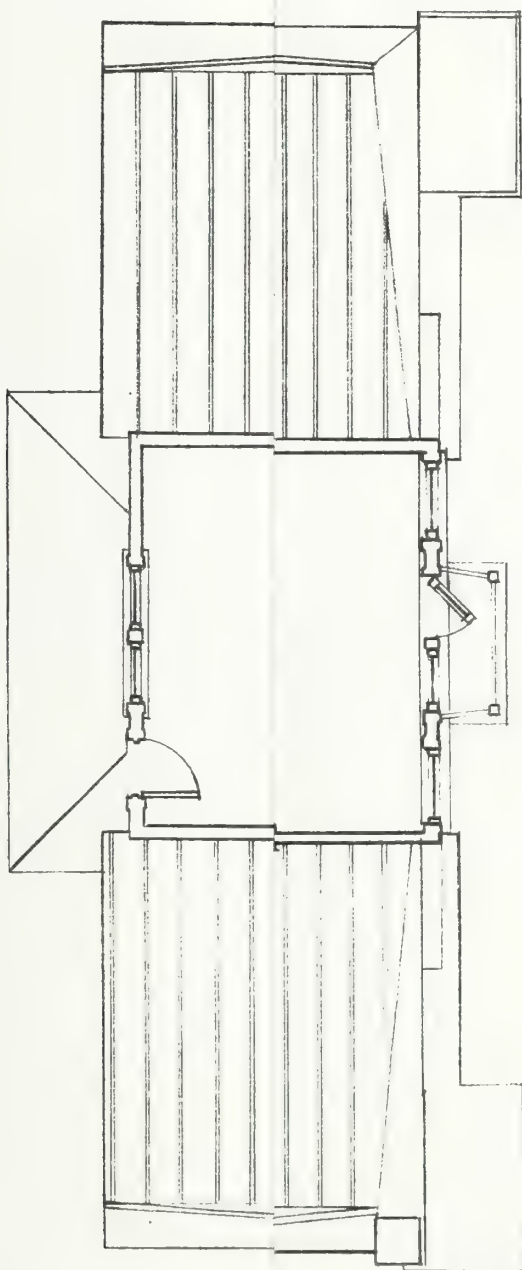
Clara Barton House
Second Floor Plan

Approximate Scale: $\frac{1}{8}$ " = 1'-0"

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Approximate Scale in Feet





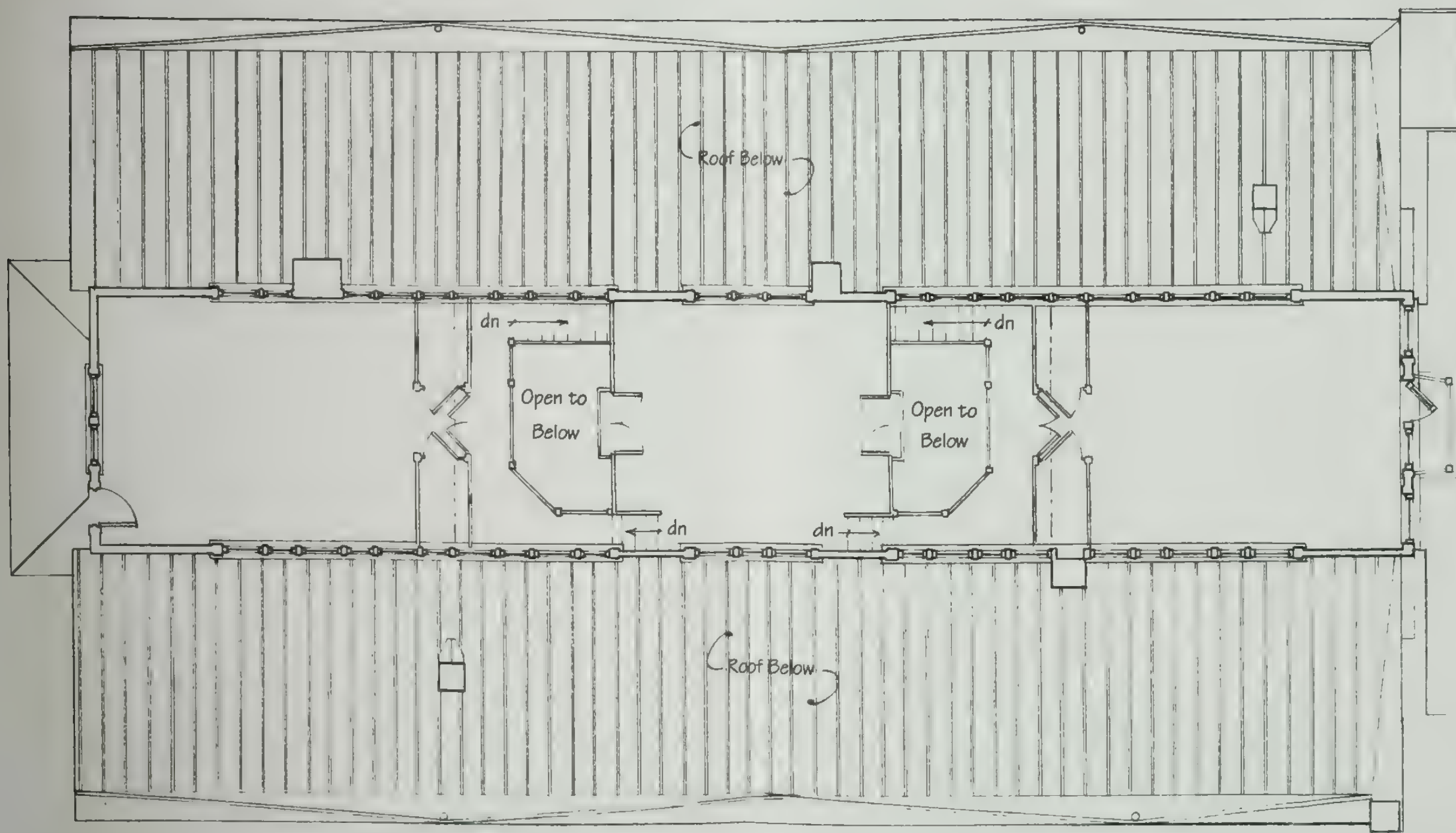
Clara Barton House Third Floor Plan

Approximate Scale: $\frac{1}{8}" = 1'-0"$

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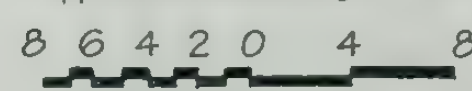
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Clara Barton House
Third Floor Plan

Approximate Scale: $\frac{1}{8}" = 1'-0"$



Approximate Scale in Feet



Appendix C Historic Furnishings Report/HFC
Clara Barton National Historic Site Excerpts

Historic Furnishings Report/HFC

CLARA BARTON NATIONAL HISTORIC SITE



HISTORIC FURNISHING PLAN

CLARA BARTON HOUSE

CLARA BARTON NATIONAL HISTORIC SITE
MARYLAND

Chapters A, B, and C by Sandra Weber

Chapters D and E by Katherine Menz

Chapter F by Diana R. Pardue

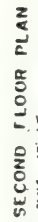
Harpers Ferry Center
National Park Service
U.S. Department of the Interior

1983

APPROVED BY MEMORANDUM
FROM REGION
DATE: JAN 18 1984

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CHAPTER A -- INTERPRETIVE OBJECTIVES

The primary interpretive goal for the Clara Barton National Historic Site is "to tell the early story of the American Red Cross through the interpretation of the life and times of its founder-Clara Barton." (House of Representatives Report Number 93-1285, p. 3, August 14, 1974.) The furnishings in the house should be appropriate to the period between 1897-1904 when the building served as Clara Barton's private residence, as well as Red Cross National Headquarters and the central Red Cross warehouse.

The furniture placement should reflect the unique intermingling of domestic and business activities which characterized the house. The interpretation of the site should stress Clara Barton's low-key, highly personal approach to the management of the Red Cross, exemplified by her establishment of the National Headquarters and storerooms within her own home. Visitors should be able to understand from the choice and placement of the furnishings how Clara Barton saw no distinction between her public and private life, and how Red Cross concerns permeated nearly every room of the house, from the Red Cross china on her sitting room table, to the Red Cross flag in the front parlor.

Clara Barton's disdain for conspicuous luxury or purely ornamental objects should also be evident. The major components of her character; her frugality, simplicity, generosity, and ingenuity, should be readily apparent to the visitors. The interpreters can help them to a better understanding of Clara Barton's unique qualities, by pointing out such items as her home-made bookcases, her utilitarian room arrangements, and her muslin-covered walls.

The furnishing plan should reflect the lifestyle and activity which was common at "Red Cross" while the staff was in residence at Headquarters, and not absent at a disaster relief site. The routine operations of the residential headquarters should be represented through the furnishing of offices, storerooms, guest rooms, and living quarters, so that the visitors can visualize the surprising variety of activity that was common at the headquarters building.

The rooms should be furnished so as to give the impression that the original occupants have recently left in the midst of their work. As the purpose of the site is to help the visitor understand the unusual operating methods of the early Red Cross, presenting the rooms in this fashion will help them to visualize the kinds of work and activity which were performed. Simple installations of Clara Barton furnishings might provide some insights into her personality, but they would do little toward explaining the unique operations of the young American Red Cross.

The ultimate goal of the interpretation of the site is to help the visitor to see Clara Barton as more than the one-dimensional "Angel of the Battlefield," and to explain the singular manner in which she administered the American Red Cross through the first twenty-three years of its existence.

CHAPTER B -- OPERATING PLAN

The following list includes all of the rooms and areas which should be furnished as soon as possible. These areas are marked with a triangular symbol on the attached floor plans:

2 Offices	1 Storeroom
5 Bedrooms	1 Storage Closet
1 Dining Room	1 Vestibule
3 Parlors	3 Landings
1 Bedroom-Storeroom	2 Hallways

The following rooms require extensive restoration work before they can be accurately refurnished. These rooms are included in the Furnishing Plan and should be furnished as soon as the necessary restoration work is completed. These areas are marked with a dot on the attached floor plans:

1 Kitchen	1 Bathroom
-----------	------------

The following rooms should eventually be furnished, but they are currently being used as National Park Service quarters. They will require extensive restoration work before they can be exhibited. Information on these areas is included in the Furnishing Study, but they are not included in the Furnishing Plan. They are marked with a rectangular symbol on the attached floor plans:

Library (2 rooms)	1 Bedroom
-------------------	-----------

Ten rooms and the basement have been reserved for National Park Service use as offices, sales rooms, quarters, etc. Furnishing these

areas is not recommended because of the lack of strong historical documentation in most cases. Other areas would require such extensive renovation as to make refurnishing impractical. Research on these areas is included in the Furnishing Study, but they are not included in the Furnishing Plan. These rooms are marked with a diamond-shape symbol on the attached floor plans.

Visitor Use

The house will be open for guided tours during the established park hours. Visitors should be encouraged to view the twenty-minute film on Clara Barton available in the program room before beginning their tour. Because of the large number of small objects within easy reach of the visitors, all visitors will be escorted through the house. Self-guided tours are not recommended, as the physical layout of the house makes it almost impossible to install the type of barriers or alarms which would adequately protect the artifacts. On those few occasions when the volume of visitation does not allow for individualized guided tours, station interpretation will be used. At such times, park staff and volunteers will be positioned in those areas most susceptible to loss or damage to protect the artifacts and to answer visitors' questions. Areas in which particular vigilance is required are the Red Cross offices and Clara Barton's bedroom.

On days when station interpretation is used, the front door will be kept unlocked, and visitors can let themselves into the house. The front door should be kept locked at all other times. Visitors must ring the bell to gain access. If all available staff members are busy giving tours, a sign may be posted on the front porch notifying visitors when the next tour will begin. Comfortable chairs and appropriate reading material should be made available on the porch to any visitors who might have to wait.

Barriers in the exhibit rooms should consist of cords placed across the room openings at an approximate height of 32". The barriers in the Red Cross office suite and Clara Barton's bedroom suite should be arranged in a general T-shaped configuration. This will allow the visitor to advance into the center room in order to view the adjoining side rooms. Dr. Julian Hubbell's bedroom will be viewed from a barrier placed across the hall doorway opening onto the kitchen stairway.

The site currently operates under certain load limitations as recommended by the Regional Engineering office. These figures shall remain in effect until such time as the necessary stabilization work is completed. It is the responsibility of each tour guide to ensure that these limits are enforced.

First Floor: Can support one hundred people.

Second Floor: Can support a maximum of twenty-five adults.

Third Floor: Can support a maximum of seven adults.

Doors to National Park Service quarters which open onto the public access areas shall be kept closed and locked during all public hours. Doors to National Park Service offices shall be kept closed during all public hours.

Staffing Requirements

For the site to maintain a seven-day-a-week interpretive program, the following minimum interpretive staff is required:

Program Director:	Full-Time, GS-9
Curator:	Full-Time, GS-7
Curatorial Housekeeper:	Full-Time, GS-4
Park Technicians/Interpretation (2):	Full-Time, GS-5.

CHAPTER C -- ANALYSIS OF HISTORICAL OCCUPANCY

On February 28, 1897, Clara Barton left her rented quarters in Washington, D.C., to take up residence in a converted warehouse in suburban Glen Echo, there also to establish the national headquarters of the American Red Cross.¹ She cheerfully confessed to a friend that "it will not be an elegant house, as some, but it will well serve the purposes that we believe are necessary."² The establishment over which Clara Barton would preside for the next fifteen years, was indeed noted less for its elegance than for its unique reflection of the character of Clara Barton herself. Combining all the functions and accoutrements of a storehouse, a national headquarters, and a private residence, the house bore the unmistakable imprint of the frugal, pragmatic, and thoroughly individualistic Miss Barton. A friend once wrote her that "I often think of your nice warm house, so full of your own individuality. The crime of being commonplace can never be laid to your door -- and your home is just as it should be, unlike anybody's else."³

During its formative years, 1881-1904, the American Red Cross was personified by Clara Barton, who founded, managed, and financed the organization almost single-handedly. Neither the general public nor Miss Barton herself could conceive of one without the other. Clara Barton's personal life was totally immersed in her labors on behalf

1. See the Clara Barton NHS Historic Structures Report for a detailed account of the move from Washington to Glen Echo.

2. Clara Barton Papers, Library of Congress, Series II, Box II, Part 2. Clara Barton to Stephen Barton, April 7, 1891.

3. Clara Barton Papers, Library of Congress, Series I, Box 63. Fannie Ward to Clara Barton

of the fledgling Red Cross. This reluctance or inability to separate her public life from her private life was clearly evident in the Glen Echo house where offices were juxtaposed to dining rooms, bedrooms were flanked by storerooms, and supply closets lined the entrance hall.⁴ The result of this was to produce a kind of "residential headquarters," where Clara Barton and her Red Cross staffers both lived and worked. The residents were expected to be as versatile as the structure itself, often leaving their typewriters and ledgers to milk the cow or help can peaches.⁵ The household assumed the appearance of an official family, with Clara Barton as the undisputed matriarch. The number of permanent residents was constantly changing, ranging anywhere from three to twenty-five as friends, staff members, domestics, and laborers came and went. A daily occupancy chart covering the time between March, 1897, and April, 1904, along with a card file on each person named is available at the site. The complexity of the comings and goings at the house during Clara Barton's tenancy makes it impractical to examine this information in narrative form.

Attracted to Clara Barton and Red Cross work more through humanitarian impulses and personal admiration than any sense of monetary gain or ambition, staff members and guests made no distinction between working for Clara Barton, the President of the American Red Cross, and Clara Barton, the mistress of the house. Duties at Red Cross Headquarters could include baking a pie as easily as translating a letter to the International Committee. Clara Barton records in her

4. See Chapter D, Evidence of Original Furnishings, Clara Barton NHS Historic Furnishing Plan for an examination of room usage.

5. Clara Barton Papers, Library of Congress, Clara Barton Diaries, 1897-1904.

diary that she returned home from town one day to "find a house full of working women. Miss Bertha [a guest] had mowed the front yard -- Susie [the cook] had rubbed down the balustrade for painting and Miss Adams [a secretary] had a big dinner ready."⁶

Clara Barton's own vigor and versatility served as the model for behavior at Red Cross Headquarters. Observing the never-ending activity of their hostess/employer, house guests and Red Cross staffers felt they could do little less. One Red Cross secretary described Clara Barton's daily routine as follows, recounting her interest and involvement in all aspects of the house management, both official and unofficial:

Clara Barton is one of the busiest women--rising before six o'clock, and seldom retiring before twelve. She has a large correspondence, and writes as easily as ever, and as firm and legible as print. During the winter she personally directed the affairs of her household, often entertaining guests. When the spring opened she not only directed the work in the garden, but often took a hand in it herself. On these days, she rises at five o'clock and writes letters till eight, breakfasts on a cup of very diluted coffee, then goes out and works in the garden until luncheon.

Though she never married, Clara Barton was seldom, if ever, alone at Glen Echo. In an effort to improve the efficiency of the Red Cross and to reduce the time lost through long commutes to and from the

6. American Red Cross Library, Clara Barton Diary, September 19, 1903.

7. Clara Barton Papers, Library of Congress, Series I, Box 63. Typescript by Janet Jennings, May, 1905.

city, Clara Barton strongly encouraged her staff to take up residence with her at Red Cross Headquarters. George M. Pullman, the organization's Financial Secretary, moved out to Glen Echo with her in 1897,⁸ and continued to live there until his resignation in December of that same year.⁹ Dr. Julian B. Hubbell, the Chief Field Agent, also took up permanent residence at Headquarters. Planning for his arrival in October of 1897, Clara Barton noted in her diary that, "Dr. H is to have the room next [to] G.P. [Pullman] and Barker will plaster it. This will give the Headquarters officers the three adjoining rooms which will make it very pleasant."¹⁰

Clara Barton came to rely on Dr. Hubbell to act as the general supervisor and foreman of the household, thus allowing herself to spend more time on Red Cross activities. It was generally Dr. Hubbell who saw to it that the lawn was mowed, that groceries were delivered, and that repairs were made. Clara Barton rewarded his loyalty by deeding him the house and its contents in 1909. This was done partially to keep the property out of the hands of her enemies in the Red Cross, but it also serves as a testament of the reliance and trust she extended to Dr. Hubbell. In addition to Clara Barton, George Pullman, and Dr. Hubbell, various other relatives, laborers, and assistants would take up residence at the house for periods of time ranging from three months to two years. (See Clara Barton NHS Occupancy Chart.)

8. Clara Barton Papers, Library of Congress, 1897 Diary.

9. Clara Barton Papers, Library of Congress, Series I, Box 31.

10. Clara Barton Papers, Library of Congress, Clara Barton Diary, October 16, 1897.

To maintain the building and grounds of this large structure, Clara Barton also employed the services of a cook/housekeeper and an outdoor groundsman. More than one dozen individuals held these two positions from 1897-1904. (See Clara Barton NHS Occupancy Chart.) About half of them lived at Red Cross Headquarters during their tenure, while the others opted to commute. An unending stream of callers, relatives, laborers, seamstresses, or guests further swelled the number of occupants at "Red Cross," as the Headquarters was called. Clara Barton kept continuous open house at Glen Echo, supplying free work and sleep space for anyone who might wish to call. It was unusual for less than six to eight people to be living in the house at any given time. (See Clara Barton NHS Occupancy Chart.) Clara Barton describes the normal state of affairs at the house in a letter to a friend:

I have been waiting for these many days trying to find a place to sandwich you in, but my house keeps so full, and the guests so come and go that I haven't found it yet.

Some extra business matters are being attended to, which has called Judge Sheldon here the last week, and he is to return soon. Dr. & Mrs. Gardner from Indiana are coming (for the same cause) and two persons from the vicinity of N.Y. will be here mainly for the next three weeks -- Therefor fifteen in the near future -- "all in sight" as one would say, then transient comers liable to remain a day or two almost numberless as for instance today, brought a lady all the way from Kansas to consult about the establishment of a "Home in Manila for the Mental and Moral betterment of our soldiers" and over which they want to spread my mantle. Dr. Hubbell, Poor Dr. -- has gone to town with her this dark windy night to see her "members," etc.

Tomorrow morning brings Mr. W.W. Howard of Cuba, as he telegraphed me at midnight last night from Jacksonville, on the way up -- This is "more business."¹¹

The reasons Clara Barton was so burdened with guests are probably twofold. By maintaining Red Cross Headquarters in her own home, she often felt compelled to offer extended hospitality to people visiting her on purely business matters. In 1904 for instance, a young woman came to Glen Echo seeking advice on how to procure a position as a nurse, and ended up staying at "Red Cross" for two months doing odd jobs about Headquarters.¹² If she had visited Miss Barton in a city office, in all probability she would never have become involved in her domestic affairs. One of Clara Barton's long-time friends chided her for being so ready to open her house and her purse to anyone who might fall in her way, "Your poor little hospitable woman! You are so used to keeping 'open house' up there, for all the world and his wife to swarm in upon you at will, that I don't believe you know when you are imposed upon in that line."¹³

Clara Barton's dependence on the volunteered time of friends and relatives to manage the Red Cross also helped to create the constant ebb and flow of residents at Red Cross Headquarters. With no established treasury, all Red Cross expenses and salaries had to come out of Clara Barton's own pocket or charitable donations. A former Red

11. Clara Barton Papers, Library of Congress, Series II, Box 27.

12. American Red Cross Library, Clara Barton Diary, September 16-November 5, 1903.

13. Clara Barton Papers, Library of Congress, Series I, Box 63. Fannie Ward to Clara Barton, March 1, 1901.

Cross staffer reported that "Miss Barton has maintained headquarters at her own expense. This has involved keeping open house for Red Cross workers, and carrying on a regular correspondence bureau with all its daily expenses for postage, stationery, stenographer, and typewriter, and it is rarely that a correspondent eased the burden by so much as a postage stamp."¹⁴

After Mr. Pullman's resignation as Financial Secretary in December of 1897, Dr. Hubbell was the only permanent salaried staff officer for the Red Cross. Very frequently, the pressure of business would become so great that Dr. Hubbell and Clara Barton could no longer manage it alone. When this situation arose, Clara Barton would begin to ask friends to come to Glen Echo for a working holiday to help clear away any outstanding Red Cross business. On one occasion she wrote a friend, "I wanted to ask you if you could not come and spend a week or more with me, as you would go to a [disaster] field¹⁵ to help write up the reports on the Galveston Hurricane work."

When recruiting assistants to help prepare for the Annual Board Meeting of 1901, Clara Barton wrote a lawyer friend, "I shall hope for a little household of ten or fifteen guests during those last days, [before the meeting] to settle all plans. I will keep my castle closed,--drawbridge down all shall be safe, and work undisturbed.--

14. Clara Barton Papers, Library of Congress, Series II, Box 27, Part 2. Typescript by General Sears "Expenditures of American National Red Cross-Nineteen Years."

15. Clara Barton Papers, Library of Congress, Series I, Box 63. Clara Barton to Fannie Ward, February 18, 1901.

I can promise that no one shall be cold or hungry albeit no elegance."¹⁶ Glen Echo neighbors were also appealed to for assistance. The resourceful Clara Barton noted in her diary on December 18, 1897, that "It occurs to me that our nearest neighbor, Mr. Briggs who is a Government stenographer, might like to write for us evenings; he calls at evening and engages to come on Monday evening and take dictation."¹⁷ Mr. S.W. Briggs continued to work for Clara Barton on and off for several years.

Nearly all official Red Cross business was conducted in this manner by friends and relatives living and/or diligently working at Clara Barton's unusual headquarters. Official activity at the house would become particularly frenetic after the closing of a disaster relief field when all accounts, reports, and receipts had to be compiled. In November of 1898 for instance, the house was full of volunteers attempting to pull together all the pieces of the Spanish-American War relief work. Clara Barton notes in her diary, "A large double mail. I struggle with it all the morning, mostly inclosures [sic] from S.E.B. Elwell works on his accts, Hubbell on his report, Judge on Texas [famine relief] & goes to town with C.E. who brot [sic] a letter. Dr. Donaldson writes me . . . Egan in Havana. Emma irons."¹⁸

Occasionally, Clara Barton would hire on a secretary/typist to help with the work. From March, 1897-March, 1904, she hired at least

16. Clara Barton Papers, Library of Congress, Series II, Box 16, Clara Barton to E.R. Ridgely, November 21, 1901.

17. Clara Barton Papers, Library of Congress, Clara Barton Diary, December 18, 1897.

18. Clara Barton Papers, Library of Congress, Clara Barton Diary, November 23, 1898.

twelve such individuals, paying them from \$20 to \$50 a month with board at Red Cross Headquarters. (See Clara Barton NHS Occupancy Chart.) Just keeping up with her enormous burden of correspondence was a struggle for her. Her diaries are filled with dis-spirited entries detailing the constant battle against letters. "Only ourselves [CB & Dr. Hubbell] at home, and the same grind to keep out of the way of letters-letters--There is no end of them. Let them go?? You cannot and live; even one day's rest or neglect, doubles the work of the next, and is all the harder--"¹⁹ On other days she reports posting as many as 86 or 40 letters.²⁰

Considering her meager resources and the temporary nature of her staff, it is really quite remarkable that Clara Barton managed to accomplish as much as she did with the early Red Cross. During the years she operated out of the Glen Echo Headquarters, she directed the Red Cross in five major disaster fields: the Cuban Reconcentrado Relief of 1898, the Spanish-American War work of 1898, the Cuban Orphan Asylums in 1898, the Galveston Flood of 1900, and the Butler, Pennsylvania, Typhoid Fever Epidemic of 1904. She could write with justifiable pride that "No Bureau of Government carries on the amount of business and work that is accomplished in this house from day to day, month to month, and year to year with one clerk, or two or three, and surely not without some funds."²¹

19. American Red Cross Library, Clara Barton Diary, September 18, 1910.

20. American Red Cross Library, Clara Barton Diary, March 3, 1904 and June 24, 1904.

21. Clara Barton Papers, Library of Congress, Series I, Box 63. Clara Barton to E.R. Ridgely, April 28, 1901.

When the Red Cross was involved in a major relief effort such as the Spanish-American War, Clara Barton would temporarily move her base of operations to a location more suitable for the reception and disbursement of relief goods than rural Glen Echo. She herself would almost invariably go to the scene of the disaster and remain until its conclusion, while the administrative and clerical staff would relocate either in Washington or New York. (See Clara Barton NHS Occupancy Chart for a record of Clara Barton's absences from Glen Echo.) During the Cuban relief work of 1899 for instance, Clara Barton was out of the area from April 2 through September 14, while her secretary, Lucy Graves, and other clerical help moved into an office in the District to carry on their work in a more accessible location.²² A family friend or trusted servant would always remain at "Red Cross" during Clara Barton's absences to supervise the laborers, to care for any unexpected guests, and to forward official mail and donations.

As much as possible, however, Clara Barton attempted to maintain headquarters in Glen Echo, believing it to be more economical than rented quarters elsewhere. When Red Cross field workers tried to persuade her to relocate the clerical branch of the organization to Galveston, Texas, for the duration of the hurricane relief work, she resisted on the grounds of economy, writing that:

It is an economy after all to have removed headquarters home, as, for instance, I am just now paying a bill for wood and coal of something over \$1.00 but at the Tremont [Hotel] we should have required four fires at \$1.00 per day each. We have just as many fires here and are doing the same work by them. Tables for ourselves and all Red Cross visitors that choose to come, with the

22. Clara Barton Papers, Library of Congress, Clara Barton Diary, 1899.

necessary provisions and servants to serve them must be and are kept up here, as there--free of all price of board here, which there [is] \$3.00 and \$3.50 per day for each--to say nothing of laundry and other incidentals, in short. Our work here including the home correspondence, the little that you send and the public reports, three in this month, to be written, a headquarters house to be kept comfortable and provided for its workers, unless some provision is made outside. I am making a free gift as of a family home with no cost to the relief work of Galveston.

Clara Barton also regularly held the Annual Red Cross Meeting in Glen Echo, providing free room and board to the forty or fifty delegates for several days at her own expense. She explained her plans for the 1903 meeting to a friend, "you know Glen Echo holds a lot of people, without crushing or bulging, and we are going to invite every voting member outside of Washington, to come and be Glen Echo's guest, for the meeting and as much longer as they will do us the favor to stay . . . You know we can accommodate easily thirty or forty and we will try to have more play than working--more fun than gloom"24 She confessed with cheerful apology to another friend that "of course you will remember some of the compliments that have been passed on this residence of mine, but never mind, what it lacks in elegance we will try to make up in homely hospitality."25

23. Clara Barton Papers, Library of Congress, Series I, Box 61. Clara Barton to Fred Ward, December 8, 1901.

24. Clara Barton Papers, Library of Congress, Series II, Box 28. Clara Barton to Enola Gardner, November 23, 1903.

25. Clara Barton Papers, Library of Congress, Series II, Box 24, Part 2. Clara Barton to William Howard, July 6, 1900.

The burden of preparing accommodations for such a large influx of guests was a heavy one, particularly with Clara Barton's inadequate household staff. She estimated that the 1901 meeting cost her between \$300 and \$400, and all the sugar, butter, lard, coffee, and tea in the house.²⁶ She felt the expense of the meetings was fully repaid, however, by the pleasure she gained in having her friends and supporters gathered around her. They were tangible proof of the success of her new organization and provided a particularly necessary boost to her spirits after 1900 when charges of mismanagement began to surround her. Her happiness is evident in the following diary entry made during the 1903 meeting, "The house is full of gaiety and life--all seem to be having the good time of their lives, a fine company of guests--the tables are full, some twenty or so."²⁷ In the evenings after official business had been completed, she would gather her "merry family" about her to play Euclid or Fantan and to enjoy dramatic readings, often of her own original poetry.

When the weather would allow, staff picnics were organized on the wooded slopes behind the house with a spectacular view of the Potomac River.²⁸

Purely recreational pursuits were often forced to the background, however, by the demands of the official and domestic duties. With Red Cross work occupying the first place in everyone's priorities, it is not surprising to discover that the domestic machinery was some-

26. Clara Barton Papers, Library of Congress, Clara Barton Diary, November 17, 1901.

27. American Red Cross Library, Clara Barton Diary, December 7, 1903.

28. Clara Barton Papers, Library of Congress, Clara Barton Diaries, August 21, 1902, October 28, 1902, March 21, 1897.

times left to run on its own as best it could. Clara Barton herself freely admitted that her home had no pretensions to grandeur or up-to-the-minute fashionableness. She warned a friend who was planning to visit that "If you really feel like risking a visit to this busy house, which must care more for the clerical work it performs than for its housekeeping, you can select your own time, only you had better let me know beforehand that I may be able to make us both more comfortable."²⁹ She attempted to retain the services of a full-time housekeeper, but was never able to find anyone who could suit her own somewhat demanding autocratic nature.

When Clara Barton moved out to Glen Echo in 1897, her Washington housekeeper, Mrs. Emma Jones, agreed to continue in her service. Mrs. Jones performed all the cooking and cleaning at "Red Cross" from March through September of 1897. After this time she no longer came to Glen Echo every day, but did continue to come out on an irregular basis until March of 1901 to help out when an extra pair of hands was desirable. Mrs. Jones' successor, Mrs. Susie Lee, lasted only two months at Headquarters before she left in a fit of temper. Clara Barton confessed to her diary that "Susa has one of her tantrums--was impudent without cause or reply. I left the room without a word and have not seen her since--do not expect her to return."³⁰ ". . . [she] is disrespectful in her language and I do not feel that any service can compensate for this way of treatment."³¹

29. Clara Barton Papers, Library of Congress, Series I, Box 63, Clara Barton to Ilka Cordory, April 16, 1901.

30. Clara Barton Papers, Library of Congress, Clara Barton Diary, May 10, 1901.

31. Clara Barton Papers, Library of Congress, Clara Barton Diary, May 11, 1901.

Such differences with the staff were apparently not uncommon at "Red Cross," and occasionally ended in the loss of a worker as was the case with Mrs. Lee. Clara Barton's diaries mention small disagreements with distressing regularity. The cause of such contretemps was no doubt the combination of simple personality conflicts and the informal arrangement of the household. Clara Barton's friends/employees were never quite certain of their status in the household. As unsalaried working guests they were in a somewhat untenable position. Individuals would sometimes begin to feel that their hostess was taking advantage of their good nature and generosity, while she in turn was baffled by their "disloyalty" when they wished to leave "Red Cross" to return to their own families and pursuits. Such misunderstandings partially explain the constant and rapid turnover of guests, domestics, and staffers at the Headquarters.

Keeping such an active household running smoothly was no easy matter for Clara Barton's housekeeper, whoever she might be. In addition to cooking and cleaning for the permanent residents, she had a never-ending stream of guests to house and victual. Before her return from Cuba after the Spanish-American War, Clara Barton wrote ahead to warn Mrs. Jones:

We are all together here and will need to be together after we get home to finish up the work, having no opportunity to do it here. Dr. Hubbell will come with me, Dr. Egan and Mr. McDowell I think, and there may be three or four more who will stop for a little until they get arranged in their own direction; therefore you will understand not to be without bread, or butter, or coffee, or tea, and such things as you need, and have several rooms arranged with clean beds and the house in as

good condition as you will usually keep it. A good boiled ham would be a good standby for you, and if you need anyone to help you, get Mrs. Grey to come for a day or two, and get the house all in order"³²

Unfortunately, Clara Barton's notion of what was "all in order" did not often correspond with that of her guests. One devoted Red Cross worker pronounced Clara Barton's domestic machinery "pathetically inefficient," and her meals "frugal."³³ Her own cousin declared that the interior of the Headquarters building was "not much more luxurious than the outside. Few homes have been erected with so little attempt at display, or with such modest provisions for reasonable comfort."³⁴ Fanatically thrifty and unpretentious, Clara Barton ran her household on the tightest of budgets, making no effort to introduce extravagance or luxury into her busy household.

Clara Barton was well aware that her converted warehouse with its muslin-covered walls and homemade furniture was no plush Victorian showcase. Indeed, she seemed to take a sort of perverse pride in its very barrenness. Invitations to visit her home were usually couched in unconvincing terms of apology. When inviting a Red Cross volunteer to work out of Glen Echo rather than his own home in Boston, she wrote, "You will understand that it is with great diffidence that I would suggest your coming into a house or home so neglected and torn

32. Clara Barton Papers, Library of Congress, Series II, Box 19, Part 1. Clara Barton to Emma Jones, August 5, 1898.

33. Clara Barton Papers, Library of Congress, Series I, Box 74. Francis Atwater to Stephen Barton, February 5, 1916.

34. The Life of Clara Barton, Volume II, William E. Barton, Houghton Mifflin Co., 1922, p. 311.

up as this is, but it is the best I can do, and you can only try it, and if you cannot abide it, you can always try, try again."³⁵

The task of running a national bureau and overseeing a household of continuously shifting occupants was simply more than one woman and one harried housekeeper could control. Too busy with Red Cross affairs to give her full attention to the domestic arrangements of the residential headquarters, Clara Barton often allowed things to go on undisturbed until a sudden influx of visitors or a change in mood suddenly forced her to take a close look at the operations of her household. Her diaries are filled with frustrated exclamations on the unsatisfactory house routine: "It is now but a short time before the Dr.'s friends should arrive, and there is a world of work to do to be in readiness to receive them, and make them comfortable . . . not one single room in all the house is in order -- and no prospect of anything being done."³⁶ Another day, she was driven to exclaim, "I do not see how it is possible to get a house so out of order and so dirty. It is double disorder, and no sense of time, or place, and procrastination the rule of everything--Don't do anything that can be left undone."³⁷

Because of the number of residents and guests was always changing so unexpectedly, the house seemed to be in a constant state of mild disorganization. Visiting businessmen might suddenly find themselves

35. Clara Barton Papers, Library of Congress, Series II, Box 28. Clara Barton to Mr. Howe, October 8, 1893.

36. American Red Cross Library, Clara Barton Diary, January 8, 1910.

37. American Red Cross Library, Clara Barton Diary, October 15, 1910.

putting up cots in a hastily cleared storeroom, while a stenographer would leave her typewriter to stitch together some curtains, and the groundsman would discover himself fixing dinner for them all.³⁸ To establish and maintain a routine was simply impossible with so much work to be done and so few people to perform it. Clara Barton herself often stepped in and tried to regulate matters. She could frequently be found in the basement washroom cleaning quilts, in the kitchen canning peaches, or in the storeroom scrubbing lamps. In spite of her best efforts, however, the backlog of Red Cross work would soon reclaim her and the house would settle back into its customary state of mild chaos.

Arranging meals at Headquarters seemed to be a particular problem. A sparse eater herself, Clara Barton seemed to have little patience with people who expected to receive three meals a day at her house. One Red Cross worker reported with wonder that "It never seems to make any difference whether she eats once a day, or twice, or three times--as most people do. She does not know what indigestion means. Though in many respects abstemious as to quantity, she nevertheless eats pie, and cheese, at any time of day or night."³⁹ One long-time Red Cross volunteer confessed that "living at Red Cross was so poor I took my meals outside as a rule."⁴⁰ It appears that Clara Barton rarely sat down with her staff or guests to eat, preferring to take

38. Clara Barton Papers, Library of Congress, Clara Barton Diary, July 27, 1901.

39. Clara Barton Papers, Library of Congress, Series I, Box 63. Typescript by Janet Jennings, May, 1905.

40. Clara Barton Paper, Library of Congress, Series I, Box 74. Francis Atwater to Stephen Barton, February 5, 1916.

her meal of a piece of cheese and an apple while seated at her desk.⁴¹ Interestingly enough, the desk in her office was situated so that it had a clear view of the table in the adjoining dining room. Whether Clara Barton arranged this so that she might be sociable while continuing to work, or to exert a subtle form of pressure on those she felt were spending too much time at the table, is not known. She was often irritated by other's demands that she keep regular meals and expressed to her diary on numerous occasions that she was "thinking how I can get the eating out of my house."⁴² Although she did attempt to establish a schedule, meals at "Red Cross" were irregular at best.

When Clara Barton did feed her guests it was usually of the plainest fare. Her own favorites were apple pie, bread, and cheese. She once described a meal of "Bread, milk and part of an apple pie" as a "very good dinner."⁴³ An example of the fare she provided for others can be found in this description of the meals she had prepared for the workmen engaged in tearing down some heavy stonework. "Had scalded milk and flour pudding made for breakfast for the men--ordered the same for dinner."⁴⁴ Clara Barton's proud claim that her house was free of unnecessary elegance could certainly be substantiated by the meals she served. (See Chapter D, Groceries & Provisions for lists of foodstuffs used at "Red Cross.")

41. Barton, p. 315.

42. Clara Barton Papers, Library of Congress, Series II, Box 19. Clara Barton Diary, October 19, 1898.

43. American Red Cross Library, Clara Barton Diary, November 7, 1910.

44. Clara Barton Papers, Library of Congress, Series II, Box 27. Clara Barton Diary, June 22, 1897.

In addition to her difficulties in keeping the house and kitchen running smoothly, Clara Barton had a singularly difficult time managing the small army of laborers she maintained at the house. When she moved in 1897, she hired nearly a dozen carpenters, plumbers, masons, and laborers to undertake the renovation of the warehouse. With her characteristic frugality, she encouraged them to live at the house to avoid commuting delays. Two of them, Andrew Elder, a carpenter, and Len Barker, a general handyman, accepted this arrangement, even though both men had families living elsewhere in the area. Elder stayed on at "Red Cross" until August 22, 1899.⁴⁵ Barker remained until his death at Glen Echo on July 30, 1898, while Clara Barton was in Cuba.⁴⁶ In addition to these two men, and Silas Richardson who tended the stock and grounds, Clara Barton hired numerous laborers on an as-needed basis to perform necessary tasks around the building. (See Clara Barton NHS Occupancy Chart for information on these individuals.)

Unfortunately, she was either an uncommonly poor judge of character or an incurable soft touch, for with the exception of Richardson and Barker, nearly all of her hired men were either quarrelsome, unreliable, or dishonest. She spent a good deal of time she could ill afford settling their differences, dealing with their unexplained absences, or suffering through their alcoholic rages. She recorded the sad fate of two of her laborers in her diary:

The drinking, & stealing & their results are almost unbearable--e.g.--here is Ernest Houghton,

45. Clara Barton Papers, Library of Congress, Clara Barton Diary, 1899.

46. Clara Barton Papers, Library of Congress, Series I, Box 36. S.W. Briggs to Clara Barton, August 2, 1898.

bound over to keep the peace with his own family
-- and under arrest for paying in a murder case
. . . .⁴⁷ Learned that poor Andrew Beckley had
gone into the house and robbed it of blankets,
soap, etc. and been caught in it & the things
brought back--I had intended to have him at once
to help in the house--poor human nature--how
frail, how prone to error and sorrow--I am not
grieved at the deprivation but am grieved at the
depredation--poor fellow he is wretched I know--
for I am wretched for him;⁴⁸ he would not have done
it if he had been sober--

Rather than dismissing her somewhat compromising workers though,
Clara Barton kept them on as long as she was able, hoping to offer
them a boost up into respectability, though the efficiency of her es-
tablishment certainly suffered through her kindheartedness. Andy
Elder was a particular problem, frequently disappearing on drinking
bouts. But Clara Barton had faith in him in spite of his lapses and
wrote to a friend, "He loses some time it is true--you know how that
is--but he has come to be so much a part of us that it never occurs
to us to let him go."⁴⁹ When he finally left Clara Barton's employ-
ment after two and a half years of service, she confided to her diary
that "with all his badness I am sorry to let him go--he has been re-
spectful and obedient to me."⁵⁰

47. Clara Barton Papers, Library of Congress, Series II, Box 36.
Clara Barton Diary, April 2, 1906.

48. Clara Barton Papers, Library of Congress, Series II, Box 31.
Clara Barton Diary, November 16, 1901.

49. Clara Barton Papers, Library of Congress, Series II, Box 24,
Part 1. Clara Barton to Sarah Earle, April 15, 1899.

50. Clara Barton Papers, Library of Congress, Clara Barton Diary,
August 22, 1899.

Clara Barton's kind patience also extended to Len Barker whose problem was not alcohol, but his estranged wife. Preferring to live at "Red Cross" rather than at his own home, Barker was more an ailing guest than an active worker the last seven months of his life. His decline began in January of 1898 when Clara Barton noted in her diary, "Barker is very low, cough dreadful, will not lie down, tired to death. I give him his wife's letter with a long friendly talk, he understands it, and her. We both pay no attention to her. I get him all the medicines and little delicacies I can, make his fire, arrange his room and get him off to bed at 10."⁵¹

Barker's wife took him home on February 11, but he returned to Glen Echo on May 10, 1898, to help the housekeepers, Mrs. Jones and Mrs. Hines, look after the house during Clara Barton's absence in Cuba.⁵² When it became obvious in June that Barker's illness was terminal, he determined to stay at "Red Cross" under Mrs. Hines' care rather than returning to his own home and the ministrations of his wife. Clara Barton assumed all the costs of his care and treatment until his death at Glen Echo on July 30, 1898.

Barker and Elder were not the only hard-luck cases Clara Barton sponsored at Headquarters. In June of 1901, she invited Mrs. Elizabeth Rich, a family friend from Massachusetts, to live with her in Glen Echo. Hearing that she had been mistreated by her relatives and was destined for the Poor House, Clara Barton wrote and invited her to

51. Clara Barton Papers, Library of Congress, Series II, Box 19. Clara Barton Diary, January 8, 1898.

52. Clara Barton Papers, Library of Congress, Series I, Box 19. Clara Barton Diary, 1898.

"live with me in Washington. You may call it a visit, and when you are not happy you will not be obliged to stay but just as long as you do want to stay you will be more than welcome. I know how you are being treated, and feel that it must come to end, and it shall, if I can make it so--"⁵³ Mrs. Rich accepted the invitation, and lived at "Red Cross" for the next two years until her death on November 3, 1903. The presence of an elderly, sometimes bed-ridden woman naturally increased the work load for Clara Barton and her beleaguered staff, but Miss Barton was adamant in her generosity, informing a new housekeeper that Mrs. Rich was "a fixture of the house, and it must support her while she stays in it."⁵⁴

Providing a temporary home for indigents was a fairly common occurrence at Red Cross Headquarters. In March of 1901, for instance, Clara Barton invited the Alliamlies, an immigrant Armenian family, to stay at "Red Cross" until they could find a home of their own. Hoping to make the arrangement mutually beneficial, Clara Barton proposed that Mr. Alliamly help her with the office work, while Mrs. Alliamly performed the duties of a housekeeper. Daughter Anna was left free to seek a secretarial position in the city.⁵⁵ The Alliamlies stayed in Glen Echo for seven months before locating a suitable home in the city. With characteristic generosity, Clara Barton searched through the Red Cross storerooms on the day of their departure and

53. Clara Barton Papers, Library of Congress, Series I, Box 63. Clara Barton to Elizabeth Rich, June 1, 1901.

54. American Antiquarian Society, Clara Barton to Ruthett Adams, April 29, 1903.

55. Clara Barton Papers, Library of Congress, Series II, Box 31. Clara Barton Diary, August 8, 1901.

sent them off with "two beds & bedding, the bedstead they slept on & a spring cot; 3 double white blankets--1 quilt, 4 sheets, & cases, 5 pillows, oil stove, tea kettle & tea pot, plates, forks & spoons, frying pans. . ."⁵⁶ Reflecting on her experiment in domestic philanthropy, she confided to her diary, "If all get away well I shall have reason to feel that all has not been in vain. I have worked hard, but all these people . . . have been carried over a chasm they could not have crossed alone, and all will be set on better footing to help themselves."⁵⁷

In addition to tending to Red Cross business, overseeing the household arrangements, settling disputes with employees, and 'carrying people over a chasm,' Clara Barton also devoted a good deal of her time to entertaining the endless stream of callers who found their way out to Glen Echo, as well as organizing and hostessing several large receptions each year. Unexpected callers were a daily occurrence. A typical diary entry reads, "At 10 Mr. Briggs came Later in the day came Miss Frances & Edna Pollard--Then May--and Clara comes & then Mr. Woodward. All stayed to supper."⁵⁸ As one of the most admired and well-known women of her day, she was also much in demand as a speaker or delegate to the many conventions which met in Washington. She was particularly active in the Civil War veterans' groups such as the Grand Army of the Republic, the Loyal Legion

56. Clara Barton Papers, Library of Congress, Series II, Box 31. Clara Barton Diary, September 20, 1901.

57. Clara Barton Papers, Library of Congress, Series II, Box 31. Clara Barton Diary, September 18, 1901.

58. American Red Cross Library, Clara Barton Diary, September 20, 1902.

of Women, and the Woman's Relief Corps. Whenever one of these groups would host a convention in Washington, she would invariably invite everyone out to "Red Cross" for a reception. There, she would display her medals and awards, and serve everyone hot chocolate and cake from tables set up in the long center hallway. Preparations for a gathering of Suffrage Convention delegates in 1904 kept the entire household busy for a week beforehand. Dr. Hubbell hung flags in the hallway, Mrs. Lee painted the walls, Mrs. Hines cleaned and polished Clara Barton's medals, and Miss Adams prepared the food for the 400 expected guests. Clara Barton herself regilded picture frames, and set about recruiting the neighbors to help usher the crowd.⁵⁹

Life was seldom, if ever, dull or monotonous at "Red Cross." Though the pace slowed somewhat after her retirement in 1904, Clara Barton kept Headquarters buzzing with activity between 1897 and 1904. People and objects were in constant motion as guests came and went, papers were written and filed, and rooms were cleaned and rearranged. It was the nerve center of an organization involved in worldwide relief work, but it was also the beloved home of Clara Barton where family and friends were always welcome. Admittedly, some of those friends had difficulty seeing this bustling establishment as a suitable home for the illustrious Clara Barton. Her cousin once wrote that:

Clara Barton lived and died surrounded by all that went into the daily performance of her work. The author of this volume confesses to a certain chill and sinking of heart when he first saw the interior of the Glen Echo home. He wanted to take Clara

59. American Red Cross Library, Clara Barton Diary, February 9-15, 1904.

Barton out of it and house her in a cozy little place of her own, where for a few hours of the day she could forget the Red Cross and all its cares. But Clara Barton gloried in those undecorated board walls as if they had been palatial ...It was a place for service, and that service was the joy and glory of her life.

Perhaps the following sketch by a Red Cross staffer best describes Clara Barton's total involvement in her work and the homey, unpretentious habits that characterized life at the Red Cross Headquarters:

What had been an exceedingly interesting house party was breaking up, and some of the guests who had come long distances had left the night before. On Friday morning, those of us who remained assembled at Breakfast, and Miss Barton greeted us with her usual manner of the perfect hostess, with whom life is passing without a ripple or without a care. Ordinary topics were discussed at the table. I think Red Cross affairs were never once referred to, and certainly no one there could have guessed at the matter of deep concern which must have filled the mind of our hostess.

After breakfast, when we were commencing to scatter, Miss Barton quietly remarked: "If you will all sit down, I want to make an announcement that I think will be of interest. I have been watching with great concern the progress of the Typhoid epidemic at Butler, and this morning a call has come, and I have arranged to leave on the night train for Pittsburg, and I hope to be in Butler at nine-thirty tomorrow morning." She then designated the Staff to accompany her. That was all. None of us spoke. . . During the day she busied herself with her usual occupations, including much correspondence. An exceedingly small steamer trunk was packed. We met at lunch, and we met at

60. Barton, pp. 308-310.

dinner half an hour before her departure, but there was no ripple to indicate that anything out of the ordinary course was taking place. And then the time came for her departure. It was a stormy night, cold and snowing. The ground was covered with snow. We all assembled on the porch to say good bye, but there was no more demonstration than an ordinary good bye when she goes into the city to return by the next car. Her quiet, sure spirit was upon us all.⁶¹

61. Clara Barton Papers, Library of Congress, Series I, Box 78, anonymous typescript.

CHAPTER F --

SPECIAL MAINTENANCE, INSTALLATION, AND PROTECTION RECOMMENDATIONS

This section contains instructions on maintaining a safe environment for museum objects in the historic house, performing necessary collection maintenance, and maintaining adequate security. See Part D. for potential sources of assistance in implementing this section. Also see the "Clara Barton NHS Standard Operating Procedures Manual" for detailed maintenance instructions and guidelines.

A. THE ENVIRONMENT

Maintaining a stable environment within a furnished building is crucial for long-term preservation of the historic furnishings. Part C. contains a list of elements destructive to historic furnishings (Agents of Deterioration), and includes recommended levels to sustain a proper museum environment.

1. Temperature/Humidity

Temperature and humidity readings must be taken on a regular, long-term basis to determine seasonal fluctuations. Recording hygrothermographs should be placed on all floors, out of reach of curious visitors, but in rooms containing historic furnishings. Weekly charts maintained for at least one year can justify changes to the existing climate control equipment.

An average internal relative humidity of $55\% \pm 5\%$ should be maintained year round. Recognizing the difficulty of such precise control and taking into consideration the needs of the historic structure, an acceptable alternative is 35% or higher relative humidity in the winter and 65% or lower in the summer. Such a broad range

in relative humidity is acceptable only if the change from the wintertime low to the summertime high, and back again, is slow and regular and the daily relative humidity varies less than 5%.

Ideally the inside temperature should be about 70°F year round. However, an acceptable temperature for winter is 50°F, and for summer 80°. Above 70°F, good ventilation is needed to minimize pockets of stagnant humid air. Rapid changes in temperature must be avoided. (Manual for Museums, pp. 67-69; Conserve O Grams 3/6, 3/7; "Clara Barton NHS Standard Operating Procedures Manual")

2. Light

Controlling both visible and ultraviolet light will prevent fading and weakening of fibers in organic materials (wood, textiles, paper, leather).

Light damage is occurring throughout the house. Many objects appear to have faded badly or have become very brittle. The light readings taken in the house generally are over the recommended levels for furnished rooms. Some sample light readings are:

First Floor

Red Cross Office	-	13000 lux (morning, east window) 50 microwatts per lumen 2540 lux (afternoon, south window) 50 microwatts per lumen
Dining Room	-	5940 lux (afternoon, south window) 50 microwatts per lumen 486 lux (afternoon, west window) 50 microwatts per lumen
Front Parlor	-	8710 lux (morning, east window) 50 microwatts per lumen

Second Floor

Clara Barton Bedroom	-	4290 lux (morning, east window) 200 microwatts per lumen
Sitting Room	-	1617 lux (morning, south window) 200 microwatts per lumen
Bedroom	-	6850 lux (afternoon, south window) 200 microwatts per lumen
Bedroom	-	2100 lux (morning, east window)

Third Floor

Sitting Room	-	1362 lux (afternoon, north window) 500 microwatts per lumen
Center, Bedroom	-	216 lux (afternoon, west window) 200 microwatts per lumen
Storage Room	-	8240 lux (afternoon, south window) 200 microwatts per lumen

Ultraviolet light filters have been installed on all windows in the house which substantially reduces damage from ultraviolet rays. These filters should be replaced promptly if they are damaged. There is some indication that these filters lose their effectiveness over time. Light readings should be kept and filters replaced if they do indeed deteriorate over time.

Visible daylight is a problem that can be solved by making use of the window shades to prevent direct sunlight from entering the furnished rooms. Window shades in windows facing east should be lowered completely in the morning and raised halfway at noon. Window shades in windows facing south should be raised halfway in the morning and lowered completely at noon. Window shades in windows facing

north and west should be lowered halfway during the entire day. When the house is closed to the public, the window shades should all be lowered completely. An ideal light reading to aim for is 150 lux in all rooms with less than 75 microwatts per lumen.

(Manual for Museums, p. 69; Conserve O Gram 3/3, 3/4, 3/5)

3. Dust

Dust is an abrasive which can attack objects directly. Prevention is better than treatment; good housekeeping should keep dust off of objects. Keeping the rooms free of dust will also benefit the furnishings.

(Manual for Museums, pp. 69-70; Conserve O Gram 7/8)

4. Insects/Rodents

Insect and rodent inspections should occur weekly, and appropriate actions taken where needed. To minimize insect and rodent activity, food and drink should not be allowed in the public areas of the house. The staff kitchen area should be kept clean and free of garbage and the residents encouraged to maintain good housekeeping practices in their quarters.

(Manual for Museums, pp. 65; 69-77; Conserve O Gram 3/9, 3/10)

5. Fire

The house now has smoke detectors in all rooms and closets. Three National Park Service quarters are located in the house; and, hopefully, the residents should be able to detect most fires in the early stages and can notify the responsible fire department. Fire extinguishers are available throughout the house. The fire department should be invited to visit the house at least twice a year to familiarize themselves with the particular problems regarding the protection of the furnishings and historic structure.

The National Park Service and volunteer staffs should be familiar with the fire excavation plan and the George Washington Memorial Parkway Disaster Plan. (See Clara Barton NHS Standard Operating Procedures Manual and VIP Handbook for Fire and Safety Procedures.) Regular fire drills should be held. Smoking is not allowed in any area of the house, including the National Park Service quarters. (See Clara Barton NHS Standard Operating Procedures Manual, George Washington Memorial Parkway Disaster Plan, Manual for Museums, pp. 77; 292-297; Conserve O Gram 2/4.)

6. Security

Protection of the furnishings is provided by visitor barriers and park employees. Park employees conducting house tours meet visitors at the front door and let them out when the tour is completed. Outside exits should remain locked.

Tour groups should never exceed fifteen people, except during special programs when more employees can be stationed throughout the house. Self-guided tours should be avoided and visitors should not be left unattended. (See Clara Barton NHS Standard Operation Procedures Manual for tour procedures.)

The park has installed a security system in the house which is not activated because of the people living there. These residents do act as a security system for the most part. A security check list is used daily when closing the house.

The mechanical security system is tested periodically. Park police are stationed at nearby Glen Echo Park and also provide security.

Park employees must insist that visitors do not touch the furnishings. Only park employees with curatorial duties should handle the historic furnishings and then as little as possible, and only with clean hands. Metal objects should not be handled without clean cotton gloves.

Small objects can be protected from unnecessary handling or theft by placing them out of reach of visitors, or securing them to large objects. Reproduction objects should be used in place of historic objects if proper protection cannot be provided and displayed objects are necessary. However, reproduction objects should not be regarded as expendable to the extent that they are given absolutely no protection or care.

Park employees should conduct walk-through examinations and visual inventories several times daily. Missing or damaged objects should be reported immediately to the Superintendent, and Incident Reports (Form 10-343A) completed.

The location file of the museum records system is an additional security device and should be kept current at all times. An up-to-date system contains object locations and descriptions. Location files, part of the records system, should be established, using salmon-colored catalogue cards (Form 10-254A). Each card should contain the object name, location (building, room, where in room) a brief description, catalogue number, and accession number. These cards should be kept in the house and organized by room, type of object (chair, table, painting, etc.), and numerical sequence by catalogue number.

Photographs showing object placement should be available for each room. Depending on size, rooms can be photographed in sections of four or more, and labeled A, B, C, etc. The contents of closets can be included. These photographs can be kept on Print File Cards, (Form 10-30), and filed by room.

(Manual for Museums, pp. 77-82; 278-297; Conserve O Gram 2/4)

7. Specific Conservation Considerations

A detailed Housekeeping Manual has been prepared for the house as part of the Standard Operating Procedures Manual. This Housekeeping Manual shall be the operational guide for the maintenance of the exhibit areas. It provides a schedule for the housekeeping duties, and indicates the tools and procedures to be used in each room. Because this document is sizeable and subject to periodic revisions and updating, no copy is included herein. The following considerations emphasize some of the major points in the Housekeeping Manual.

1. Objects should never be placed next to, or on top of, functioning heating vents, or stoves which will dry out wood, textiles, leather, and paper objects. An alternative to relocating objects is to close off vents.

2. When placing objects such as lamps, books, and other small objects on other materials (textiles, finished wood surfaces, paper, or leather), protective barriers should be placed between the objects to prevent the transfer of corrosion or chemicals, and to evenly distribute weight. Suitable protective barriers are: acid-free cardboard; museum mat board (100% rag); or polyethylene foam.

3. Pages of open books should be turned weekly to avoid excess damage to any two pages or the spine of the book.

4. No historic papers or photographs should be exhibited merely to recreate an historic scene; modern copies will have the same overall effect. Copies should be replaced as needed to create a fresh appearance.

5. Garments should be hung on either padded wooden hangers or padded pegs. Polyethylene foam or cotton batting, covered with cotton muslin, forms good padding. Only very strong textiles in good condition can bear the strain of hanging.

6. All framed paper materials (such as prints and photographs) should be matted with 100% rag board and framed according to Conserve O Gram 13/1. Photographs should be matted with 100% rag board that has not been buffered.

B. COLLECTION MAINTENANCE AND HOUSEKEEPING SCHEDULE

The Site Manager is responsible for the collection; all collection maintenance, as well as cleaning materials, must be approved by her/him.

The employee responsible for collection maintenance should first receive curatorial training.

General Rules for Handling Objects

1. Be aware that all objects should be treated respectfully. Haste makes for bumped, scratched, and broken objects; always schedule enough time to complete the task. Be thorough, but remember that over cleaning may be as harmful as no cleaning. Be gentle rather than enthusiastic.

2. Fingerprints leave deposits of dust, water, and oils where pockets of corrosion develop on metal objects. Always wear clean white gloves when handling metal objects (silver, brass, copper, steel, and iron) and leather objects. When the gloves become soiled, rinse them in Ivory--do not use bleach. Always have clean, dry hands when handling other types of materials.

3. When moving any object, support that piece. Carry only items that can rest securely in both hands, and carry only one thing at a time. Never lift anything by its handle, spout, ears, rim, or any other protruding part. Support it from below at the base and at the side. Moving large pieces of furniture requires two people so that mishandling by tugging, pulling, and sliding is avoided. When several objects are moved that are small enough to fit in a basket, pad each object (along with the basket). Do not stack objects on top of each other. Do not allow parts of objects to protrude from the basket (or any container) while in transport. The loaded basket must be light enough to be carried easily.

4. Moving objects displayed above fireplaces or on high shelves requires two people, using a ladder. One person should ascend the ladder, and using both hands, carefully transfer the object to the person on the ground. Lids or any removable parts should be firmly affixed or removed before moving.

5. Carry chairs by their seat rails; large upholstered chairs should be carried by two people. In most cases, tables should be supported by the skirt.

6. Plan ahead. Know where you are taking an object, what obstacles are on the way, and have the pathway cleared and padded if necessary.

7. If something breaks, report it to the Site Manager. Save all fragments and keep them together.

General Recommendations for Using This Housekeeping Schedule

1. Discretion and sensitivity must be applied in following this housekeeping schedule. Dusting and cleaning museum objects should be based on need and condition. Cleaning frequency may vary, depending on the location of the object in the house (if it is close to an exterior door), the season of the year, and the level of visitation. Judgment should be exercised accordingly by the person with curatorial duties. The less handling an object receives, the longer it will survive.

2. When dusting, the dust should be removed--not just pushed around. When some objects are dusted with a dry cloth or artist's brush, use a vacuum cleaner to pick up the dust that is removed from the object into the air. Vacuuming is the best method of dusting, but a variety of suctions should be used, depending on the stability and age of the object or surface. Some vacuum cleaners are now equipped so that the suction can be lowered; a voltage regulator can be used with the vacuum cleaner that will also lower the suction. A hand vacuum cleaner is good to use when a low suction is required for fragile objects because it generally has a much lower suction than the larger vacuum cleaners.

A plastic mesh screen also should be used on fragile surfaces to relieve strain. Metal, glass, and ceramic objects on mantels, tables, or high shelves should be dusted in an area removed from the furnished area. When clean, they can be returned to their exhibit location. Be very careful when handling these objects--this requires two people.

3. During seasons with low visitation levels, the daily, weekly, and monthly tasks can be done with less frequency. Biannual tasks should be done in the spring and at the beginning of winter. Annual and biennial tasks should be done during winter months.

Specific Recommendations

Ceramics and Glass

Once a year, ceramic and glass objects should be examined to see if additional cleaning is needed. Clean these objects according to the directions in Conserve O Gram 8/2. Do not immerse unglazed portions of earthenware. Instead, wipe these sections with a damp cloth or artist's brush.

Textiles

1. Vacuuming: Fibers should be tested initially for stability. Turn the suction down to the lowest level. Carefully vacuum a small, unnoticeable section of the textile, holding the plastic mesh screen over the textile to eliminate strain. Then check the area vacuumed for loose fiber ends. If none are visible, continue vacuuming the textile using the brush attachment. Use the plastic mesh screen on all fragile areas to eliminate strain.

Vacuum upholstered furniture using the upholstery attachment and the plastic mesh screen. Place the screen against the upholstery and vacuum over it. Work dust out of corners, pleats, and tufts with a clean brush attachment.

2. Cleaning: Reproduction textiles can be dry-cleaned by a dependable dry cleaner, once a year or as needed. Historic textiles should be cleaned by a professional textile conservator. If there is

a question as to whether a textile can be cleaned by the curatorial staff, consult with the Regional Curator or the Textile Conservator in the Division of Conservation.

3. Rugs: Rugs which are new or used specifically for visitor access can be vacuumed more frequently than the older, worn rugs on exhibit. When vacuuming well-worn rugs, the plastic mesh screen should be used as explained above to relieve strain and a low suction should be used as well.

Metals

1. Brass, copper, and silver objects should be polished and lacquered to avoid polishing every year. A coat of lacquer should last a long time (around 10 years); inspect objects yearly for tarnished spots, indicating that the lacquer needs replacing.

Lacquering can be done on contract or by a staff person. Contact the Regional Curator for assistance with this project. The Metals Conservator, Division of Conservation, can be consulted for additional assistance.

2. Iron objects can develop rust and corrosion. If this occurs, see Conserve O Gram 10/1 for information on further treatment.

3. Cast and wrought iron stove and fireplace equipment can be polished with stove blacking.

4. Excessively dirty metal objects can be washed. Do not wash objects with sections made of other materials, such as bone or wood. If dusting is done regularly, washing should not be necessary. Washing should never occur on a regular basis.

Procedure for Washing:

Wash in warm water and non-ionic detergent; rinse in clear water and dry completely with a soft clean cloth.

Floors

Monthly Cleaning: The wood floors can be damp mopped and buffed. Buffing removes slightly imbedded dirt and restores the waxy gloss. When dirt has been moderately ground into the wax, buffing should follow damp mopping.

Procedure for Cleaning:

Buffing: Equipment--Electric floor polisher, clean buffing brushes, or pads.

Procedure: Vacuum floor thoroughly first. Attach buffer to floor polisher head. Guide polisher from side to side, in parallel paths, until entire floor is buffed. Avoid hitting furnishings or baseboards with polishing machine. Clean pads or brushes when finished.

Damp Mopping: Equipment--Clean string mop, mop bucket, and wringer.

Procedure: Fill bucket half full with cold water. Vacuum thoroughly before mopping. Wet mop in cold water and wring it nearly dry. Mop open floor in long continuous side-to-side strokes. Reverse direction every fourth stroke. Rinse and wring mop frequently. Change water as soon as it gets dirty. Try to avoid slapping strands of mop against furniture, rugs, or baseboards. When finished, wash mop, bucket, and wringer.

For more detailed information on caring for floors, see the Manual for Museums, pp. 222-231.

Windows

Biannual Cleaning: The windows should be washed inside and out. No liquid should run onto the wooden framework.

Equipment: Two people, ladder, chamois, pail, sponge, water.
(Do not put a cleaning solution in the water when washing the interior of the windows. Use plain water only. Soaps or detergents will cause the ultraviolet filters to become unglued.)

Procedure: Interiors - Dust window frames and surrounding framework. Dampen sponge in plain water and gently wipe, being careful not to catch the edges of the ultraviolet filters, thereby tearing them. Remove any excess moisture with a squeegee, again being careful not to pull the filters from the window.

Exteriors - Dampen sponge in cleaning solution and use overlapping strokes to wash each pane. Remove dirty water from the pane with chamois. Change water when it becomes dirty.

For more detailed information on cleaning windows, see Manual for Museums, pp. 238-239.

Ventilation System

Biannual Cleaning: Have the maintenance staff clean the heating and air conditioning units and replace soiled filters.

Housekeeping Schedule

See the "Clara Barton NHS Housekeeping Manual" for complete housekeeping schedule and procedures.

C. AGENTS OF DETERIORATION

Proper care of a museum collection consists of reducing the rate of deterioration to a minimum by housing the collection in a safe environment. A safe environment will prolong the life of an object and minimize conservation treatment. Prevention is always better than treatment.

The Manual for Museums includes a chapter on caring for a collection. The sections on agents of deterioration (pp. 67-82) and climate control (pp. 83-91) should be read carefully. Another good source to become familiar with is The Museum Environment by Garry Thomson. It contains useful information on lighting, humidity, and air pollution.

Damaging conditions are:

Too much or too little humidity

40% - 60% is an ideal range; metals do best at 40% or below. At very low levels, organic materials dry out and become brittle; at high levels mold will develop and metal will begin to corrode. Manual for Museums, pp. 67-68, 83-89.

Too much or too little temperature

60°-70°F is the recommended range. The greatest danger lies in the variation of temperatures. Rapid and wide variations can cause dangerous expansion and contraction of some objects. Manual for Museums, pp. 68-69, 83-86, 89.

Too much light *

- 50 Lux - Textiles, watercolors, prints and drawings,
(5 Footcandles) paper, wallpapers, dyed leather, most natural history objects (botanical specimens, fur, feathers, etc.)

- 150 Lux - Oil and tempera paintings, undyed leather,
(15 Footcandles) horn, bone, ivory, and oriental lacquer.

- 300 Lux - Other objects.
(30 Footcandles)

*Garry Thomson, The Museum Environment (London: Butterworths, 1978), 23.

Ultraviolet light should be filtered out. The length of time an object is exposed to light is equally important. Use light only when necessary. Manual for Museums, pp. 69, 86, 90-91.

Chemical Air Pollution

Common air pollutants include industrial fumes, motor vehicle exhausts, and salts from the ocean. Materials such as unseasoned woods, paints containing lithopone (in the pigment), unpainted hardboard, acidic papers and plastics also release harmful vapors. These materials should be avoided in construction of exhibit cases or storage equipment. Manual for Museums, pp. 70, 91.

Dust

It acts as an abrasive, provides surface for moisture condensation and will soil the surface of objects. Once an object is covered with dust, the removal process can accelerate wear and increase the possibility of physical damage. Manual for Museums, pp. 69-70, 91.

Mold (Also called Mildew)

This growth probably destroys more objects than any thing else. Growth is more likely and noticeable on organic objects in an atmosphere of more than 65% RH and 60°F. Look for velvety patches or areas of discoloration. Avoid warm, damp environments. Manual for Museums, pp. 70-71, 39.

Insects

The most common insects to watch for are powder-post beetles, clothes moths, silverfish, dermestid beetles, and cockroaches. Their damage is rapid and irreversible. Manual for Museums, pp. 71-76.

Rodents

In a very short time these animals can destroy a collection by their eating and nest-making. Watch for droppings, signs of gnawing and rodents themselves. Manual for Museums, p. 77.

Fire

A fire can wipe out an entire collection very quickly. Keep flammables in special fire-resistant containers. Work out a fire emergency action plan with staff and local fire-fighting organization. Manual for Museums, p. 77.

Humans

Human hazards to the collection are careless handling (by visitors and staff), vandalism, and theft. The security of the collections depends primarily upon the staff. (Manual for Museums, pp. 77-82)

D. SOURCES OF ASSISTANCE

Persons responsible for the care and protection of museum objects must follow the procedures and guidelines outlined in the "Clara Barton NHS Housekeeping Manual." This manual is part of the site's "Standard Operating Procedures Manual." They must also be familiar with the "George Washington Memorial Parkway Disaster Plan," the National Park Service Museum Handbook, the Conserve O Gram series, and Ralph Lewis' Manual for Museums (National Park Service, Government Printing Office, 1976). Sections in the Manual for Museums which are particularly useful for implementing these recommendations are Chapter 4, "Caring for a Collection," pp. 61-112; Chapter 11, "Housekeeping," pp. 204-259; and Chapter 12, "Protection," pp. 260-298.

Other useful publications are:

Committee on Libraries, Museums, and Historic Buildings. Protection of Museums and Museum Collections 1980. NFPA 911, Boston: National Fire Protection Association, Inc., 1980, one of the best sources on fire protection and prevention, specifically written for museums.

Edwards, Stephen R., Bruce M. Bell, and Mary Elizabeth King. Pest Control In Museums: A Status Report. Lawrence, KS: Association of Systematic Collections, 1980, a good guide to pesticides, their use in museums, and common insect pests.

Thomson, Garry. The Museum Environment. London: Butterworths, 1978. An excellent source of information on light, humidity, and air pollution.

Useful audiovisual programs are:

"Housekeeping Techniques for the Historic House," "Museum Fire Security," and "Site Security." These programs are produced by the American Association of State and Local History.

Additionally, the Regional Curator, National Capital Regional Office, and the Curatorial Services Division, WASO can provide assistance and further information for managing the museum collection.

End of Historic Furnishings Report/HFC:Excerpts

Appendix D Structural Calculations

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Vienna, Virginia 22182
(703) 556-0651

JOB #1672 - CLARK BARTON HOUSE

SHEET NO. 1

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OF

DATE 4.30.07

DATE

CALCULATIONS: Ref: 1006 DOCA

SNOW LOAD:

$$P_g = 20 \text{ psf.}$$

$$C_e = 0.7$$

$$C_s = 0.93$$

Figure: 1608.3(1)

$$\text{ROOF} = 8:12.$$

$$C_s = \frac{1 - (33 - 30)}{40} = .93$$

$$P_f(\text{sloped}) = 20(0.7)(.93) = 13 \text{ psf.}$$

$$P_f(\text{flat}) = 20(0.7) = 14 \text{ psf}$$

$$D = 0.13(20) + 14 = 16.6 \text{ psf.}$$

$$W_b = \frac{P_f}{D} = \frac{14}{16.6} = .84'$$

$$W_b = 20'(\text{max})$$

$$W_d = 0.43 \sqrt[3]{20} \sqrt[2]{20+10} - 1.5 = 1.23'$$

$$P_m(\text{Drift}) = (1.23 + 0.84) 16.6 = 34 \text{ psf.} \quad \therefore \text{use } 30 \text{ psf Uniform.}$$

ROOF DEAD LOAD: SLOPED

$$\text{MTL. ROOFING} = 1 \text{ psf.}$$

$$1" \text{ WOOD DECKING} = 3 \text{ psf.}$$

$$\text{RAFTERS} = 1 \text{ psf.}$$

$$\text{FABRIC CEILING} = 1 \text{ psf.}$$

$$6 \text{ psf} / \cos 33^\circ = 7.2 \rightarrow 8 \text{ psf.}$$

ROOF DEAD LOAD: FLAT

$$\text{MTL. ROOFING} = 1 \text{ psf.}$$

$$1" \text{ WOOD DECKING} = 3 \text{ psf.}$$

$$\text{RAFTERS} = 1 \text{ psf.}$$

$$\text{PLASTER + WOOD LATH} = 8 \text{ psf.}$$

$$\text{MEP} = 2 \text{ psf.}$$

$$\underline{15 \text{ psf}}$$

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4. SLOPED RAFTERS:

Wood Properties from
NDS 1201, Table 4B.

A.) 1" x 7" RAFTERS:

$$S_x = \frac{1(7)^3}{6} = 8.17 \text{ in}^3$$

$$w = (13 + 8) 1.67 = 35 \text{ plf}$$

$$M = 35(8.5)^2 / 8 = 316 \text{ ft.lbs}$$

$$f_b = \frac{316 \times 12}{8.17} = 464 \text{ psi} < 1500 \text{ psi (ok)}$$

B.) 2" x 3 1/2" RAFTERS:

$$S_x = \frac{2(3.5)^3}{6} = 4.08 \text{ in}^3$$

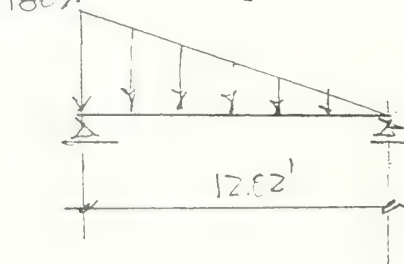
$$w = (13 + 8) 1.75 = 36.8 \text{ plf}$$

$$M = \frac{36.8(8.5)^2}{8} = 332 \text{ ft.lbs}$$

$$f_b = \frac{332 \times 12}{4.08} = 976 \text{ psi} < 1550 \text{ psi (ok)}$$

C.) 2" x 5 3/4" HIP RAFTERS:

$$S_x = \frac{2(5.75)^3}{6} = 11.02 \text{ in}^3$$



$$M = .1283 wL$$
$$= .1283 (1082)(12.02) = 1668$$

$$f_b = \frac{1668 \times 12}{11.02 (1.15)} = 1580 \text{ psi} < 1550 \text{ psi (ok)}$$

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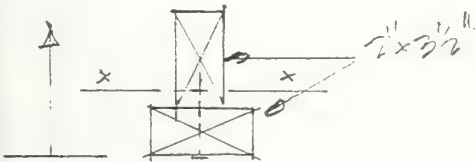
II. FLAT RAFTERS: slope = 2:12, $2 \times 3\frac{1}{2}" @ 17" o.c.$

$$S_x = 4.08 \text{ in}^3, W = (30 + 15) 17/12 = 71 \text{ plf}$$

$$M = \frac{71(15.5)^2}{8} = 2140 \text{ ft. lbs.}$$

$$f_b = \frac{2140 \times 12}{4.08 \times 1.15} = 5472 \text{ psi (NG).}$$

• RECALCULATE W/ BOTTOM PLATE PROPERTIES



$$\bar{y} = \frac{7.0(1.0) + 7.0(3.75)}{2(7.0)} = 2.375"$$

$$I_{xx} = \frac{7(3.75)^3}{12} + \frac{7.0(2^3)}{12} + 7.0(1.375)^2 + 7.0(1.375)^2$$

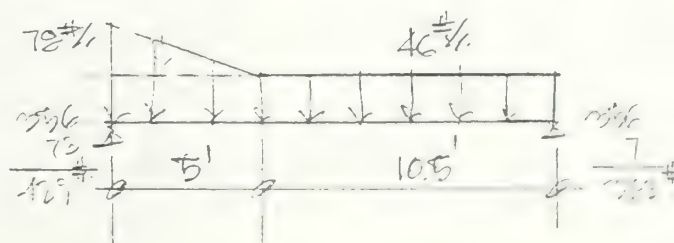
$$= 155.95 \text{ in}^4$$

$$S_{xx} = \frac{155.95}{(5.5" - 2.375")} = 11.50 \text{ in}^3$$

$$f_b = \frac{2140 \times 12}{11.50 \times 1.15} = 1941 \text{ psi} > 1850 \text{ psi (NG).}$$

• RECALCULATE NEW TRIFT LOADS.

$$W_d = 4 \text{ hf} = 4(1.23) = 4.92 \sim 5$$



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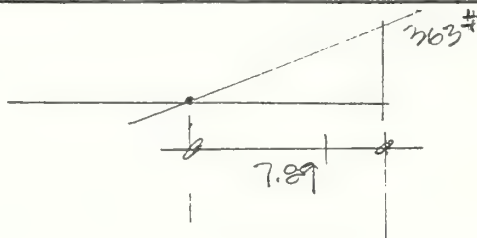
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$$T = \frac{363(7.89)}{2} = 1432 \text{ ft. lbs.}$$

$$F_b = \frac{1432 \times 12}{1.15(11.50)} = 1300 \text{ psi} < 1850 \text{ psi (OK)}$$

FLOOR LINE LOAD ANALYSIS:

I: THIRSTY:

TYPICAL JOIST: $2 \times 7 \frac{1}{2} @ 21" \text{ O.C.}$

$$S_x = \frac{2(7.5)^2}{6} = 18.75 \text{ in}^3$$

DEAD LOADS

1" DECKING	:	3 psf
JOISTS	:	2 psf
PLASTER + WOOD LATH	:	8 psf
MEP	:	2 psf
		<u>15 psf</u>

GYP. BOARD & BALCONY = 3 psf

10 psf

$$F_b = 1500 \text{ psi}, C_r = 1.15$$

$$T_{\text{allow}} = \frac{18.75(1500)(1.15)}{12} = 2626 \text{ ft. lbs.}$$

$$W_{\text{allow}} = \frac{8(2626)}{(15.9)^2} = 90 \text{ plf}$$

$$W_{\text{DL}} = 15(21 \times 12) = 26 \text{ plf}, W_{\text{LL allow}} = \text{plf}$$

$$W_{\text{LL allow}} = 36.5 \text{ psf}$$

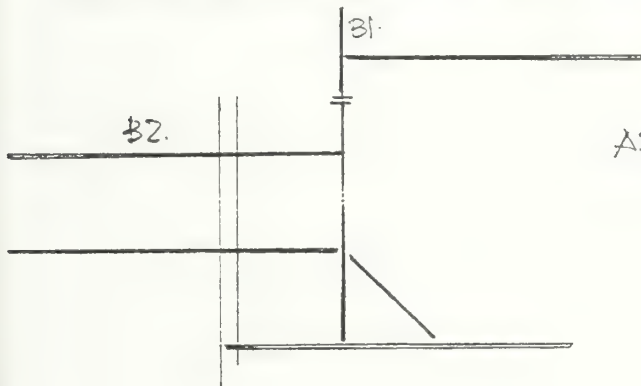
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THIRD FLOOR (CONT)

- CHECK CANTILEVER CONDITION AT STAIRS (12'2" x 5'2" @ 21'0").



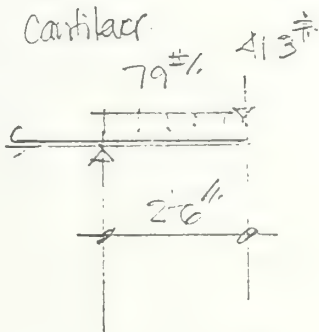
ASSUME: LL = 30 psf

B1:

$$w = 15.5 + 10 = 25.5 \text{ psf}$$

$$R = 25.5 (3.5' / 2) = 413 \text{ #}$$

B2: Cantilever



$$M = \frac{79 (2.0')^2}{2} + 413 (2.0') = 1279 \text{ ft.lbs.}$$

$$V = \frac{79}{2} (15.5 + 2.5) + \frac{413}{15.5} (15.5 + 2.5) = 1505$$

$$S_x = \frac{1.75 (15.5')^2}{6} = 8.82 \text{ in}^3$$

$$f_y = \frac{3 (1279)}{2 (9.62)} = 203 \text{ psi}$$

$$f_b = \frac{1279 \times 12}{8.82} = 1740 \text{ psi} > 1650 \text{ psi (NG)}$$

$$LL_{allow} = (1650 / 1740) 45 - 10 = 32.7 \text{ psf} \leftarrow \text{flexure.}$$

$$LL_{allow} = (90 / 203) 45 - 10 = 10 \text{ psf} \leftarrow \text{shear.}$$

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II. SECOND FLOOR FRAMING:

- TYPICAL JOISTS: $2" \times 5 \times 4' @ 16" O.C.$, Max. span = 16' (SITTING RM/LIVING RM)
 $S_x = 11.02 \text{ in}^3$, $DL = 15 \text{ psf (TYP.)}$

$$F_b = 1650 \text{ psi}, C_r = 1.15$$

$$M_{allow} = \frac{11.02(1650)(1.15)}{12} = 1742 \text{ ft-lbs.}$$

$$W_{allow} = \frac{2(1742)}{(16)^2} = 24.5 \text{ plf. CENTER}, 58.0 \text{ plf. WINGS.}$$

$$W_{DL} = 15(16/12) = 20 \text{ plf.}, W_{LL} \text{ allow} = 24.5 \text{ plf. CENTER.}$$

$$LL \text{ allow} = 24.5 \left(\frac{12}{16} \right) = \boxed{25.9 \text{ psf}} \text{ @ CENTER PORTION}$$

$$\boxed{27.5 \text{ psf}} \text{ @ WINGS.}$$

- HALL - CANTILEVERED JOISTS

Worst CASE: $2" \times 5 \times 4' @ 16" O.C.$

$$W_{allow} = \frac{2(1515)}{(4.5)^2} = 150 \text{ plf.}$$

$$W_{DL} = 20 \text{ plf.}, W_{LL} = 130 \text{ plf.}$$

$$LL \text{ allow} = 130 \left(\frac{12}{16} \right) = 97.5 \text{ psf. (Flexure)}$$

CHECK SHEAR:

$$V_{max} = \frac{(97.5 + 15)(15.5^2 + 4.5^2)}{2(15.5)} = 945 \text{ lbs. } (16/12) = 1260$$

$$f_v = \frac{3(1260)}{2(11.50)} = 164 \text{ psi} > 90 \text{ psi}$$

$$LL \text{ allow} = 90/164(112.5) - 15 = \boxed{46 \text{ psf.}}$$

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III. FIRST FLOOR FLOORING:

- WORST CASE AT CENTRAL SPAN BETWEEN C & E.
2x8 JOISTS @ 12" O.C. SPAN = 16'-0"

FLOOR DEAD LOAD:

1" DECKING	=	3 psf
1" SUB-FLOORING	=	3 psf
2x8 @ 12" O.C.	=	3 psf
MEP	=	3 psf
		<u>12 psf</u>

$T_b = 1500 \text{ psi}$

$$S_x = \frac{2(8)^3}{6} = 21.33 \text{ in}^3$$

$$M_{allow} = \frac{21.33(1500)(1.15)}{12} = 3067 \text{ ft-lbs.}$$

$$W_{dl} = 12 \text{ plf}, \quad W_{Tallow} = \frac{8(3067)}{16^2} = 95.8 \text{ plf}$$

$$W_{LLallow} = 95.8 \text{ plf}$$

$$\boxed{L_{allow} = 84 \text{ psf}}$$

- WORST CASE BEAM: 46x20 ALONG GRID "D"

$$W_{dl} = 12 \text{ psf} (15.5' \times 2) + 20 = 113 \text{ plf}$$

$$W_{LL} = \frac{100 \text{ psf} (15.5' \times 2)}{2} = 775 \text{ plf}$$
$$\underline{888 \text{ plf}}$$

$$M = \frac{888(14.5)^2}{8} = 23.3' \text{ k}$$

$$M_{allow} = 24.5' \text{ k} > 23.3' \text{ k} \quad \therefore \text{OK}$$

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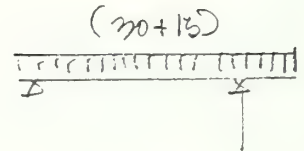
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• CHECK CALC "C":

$$\begin{aligned}
 W_{\text{ROOF S}} &= 149 \text{ plf} \\
 W_{\text{ROOF \#}} &= 429 \text{ plf} \\
 W_{\text{THATCH}} &= 399 \text{ plf} \\
 W_{\text{SECOMP}} &= 581 \text{ plf} \\
 W_{\text{FAST}} &= 1104 \text{ plf} \\
 W_{\text{beam}} &= 25 \text{ plf} \\
 W_{\text{walls}} &= 400 \text{ plf} \\
 \hline
 &= 2727 \text{ plf}
 \end{aligned}$$



$$M = \frac{2.73(9.25)^2}{8} = 29.2 \text{ ft.k.}$$

$$M_{\text{allow}} (146 \times 25) = 30.6 \text{ ft.k.} \therefore (\text{ok})$$

$$R_{\text{column}} = 2.73 \left(\frac{9.25 + 9.94}{2} \right) = 26.2 \text{ kips.}$$

$$R_{\text{allow}} (4" \phi \text{ std pipe}) \quad KL = 10, = 49 \text{ k}, 26.2 \text{ k} \therefore (\text{ok})$$

III. OCCUPANCY CALCULATIONS

200 lbs/person @ 2 sf/person @ ASSEMBLY USE:

$$\begin{aligned}
 \text{AT 3rd Flr: Max. Occupancy} &= \frac{200 \text{ sf}}{26.5} = 7.54 \text{ sf/person} \\
 \text{AT STAIR:} & \quad \frac{200 \text{ sf}}{10} = 20 \text{ /person}
 \end{aligned}$$

$$\text{Smallest Third Floor Rm.} = \frac{289 \text{ sf}}{7.54 \text{ sf/person}} = 38 \text{ PEOPLE.}$$

$$\text{Stair Area} = \frac{10 \times 2.5}{20} = 1.25 \text{ PEOPLE.}$$

Limit to 1 PERSON ON STAIR.

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• AT 2ND FLR:

$$\text{LIMITING CAPACITY} = 25.9 \text{ psf. (ROOMS)} \quad 200 / 25.9 = 7.72$$

Excluding Closets & Bathrooms, Smallest Central Rm. is Living Rm:
 $\text{CAPACITY} = 305 \text{ sf} / 7.72 = 39.5 \text{ PEOPLE}$

$$\text{AT WINGS, LIMITING CAPACITY} = 27.5 \text{ psf, } 200 / 27.5 = 7.27$$

$$\text{KITCHEN (7'-10" x 15'-3")} = 119 \text{ sf} / 7.27 = 16.4 \text{ PEOPLE.}$$

$$\text{AT HALLWAY, LIMITING CAPACITY} = 46 \text{ psf, } 200 / 46 = 4.35$$

$$(44'-5" \times 15'-10") = 703 / 4.35 = 161 \text{ PEOPLE.}$$

$$\text{LIMITING SIZE} = \underline{\underline{16 \text{ PEOPLE.}}}$$

• AT 1ST FLR:

$$\text{LIMITING CAPACITY} = 84 \text{ psf. } 200 / 84 = 2.38$$

$$\text{BEDROOM (9'-5" x 15'-3")} = 143.6 / 2.38 = \underline{\underline{60 \text{ PEOPLE}}}$$

TABLE 4B — DESIGN VALUES FOR VISUALLY GRADED SOUTHERN PINE DIMENSION LUMBER
 (Tabulated design values are for normal load duration and dry service conditions, unless specified otherwise.
 See NDS 2.3 for a comprehensive description of design value adjustment factors.)

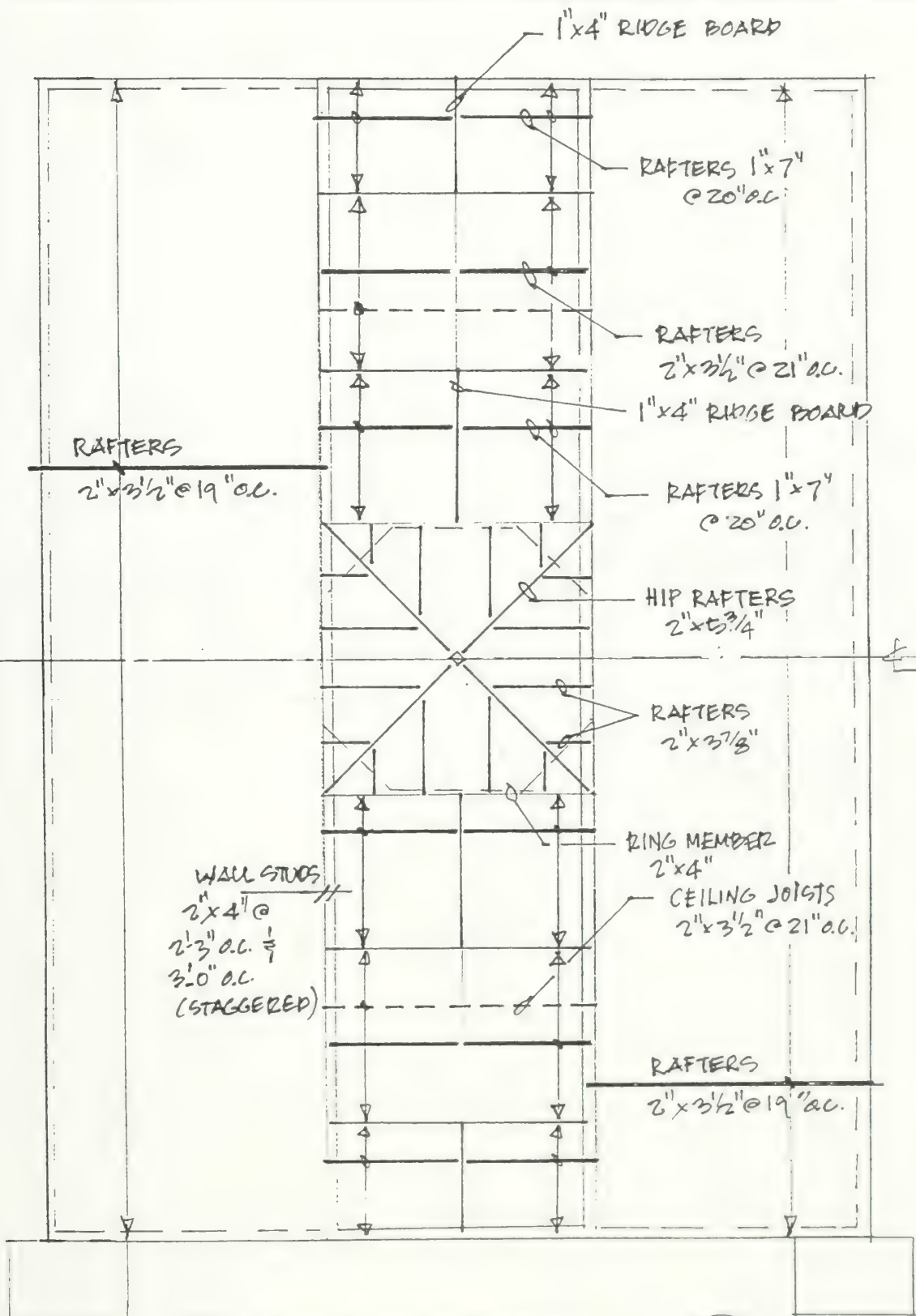
USE WITH TABLE 4B ADJUSTMENT FACTORS

Species and commercial grade	Size classification	Design values in pounds per square inch (psi)						Grading Rules Agency
		Bending F _b	Tension parallel to grain F _t	Shear parallel to grain F _v	Compression perpendicular to grain F _{c⊥}	Compression parallel to grain F _c	Modulus of Elasticity E	
SOUTHERN PINE								
Dense Select Structural	2"-4" thick 2"-4" wide	3050	1650	100	660	2250	1,900,000	SPIB
Select Structural		2850	1600	100	565	2100	1,800,000	
Non-Dense Select Structural		2650	1350	100	480	1950	1,700,000	
No.1 Dense		2000	1100	100	660	2000	1,800,000	
No.1		1850	1050	100	565	1850	1,700,000	
No.1 Non-Dense		1700	900	100	480	1700	1,600,000	
No.2 Dense		1700	875	90	660	1850	1,700,000	
No.2		1500	825	90	565	1650	1,600,000	
No.2 Non-Dense		1350	775	90	480	1600	1,400,000	
No.3		850	475	90	565	975	1,400,000	
Stud	875	500	90	565	975	1,400,000		
Construction	2"-4" thick	1100	625	100	565	1800	1,500,000	
Standard	4" wide	625	350	90	565	1500	1,300,000	
Utility		300	175	90	565	975	1,300,000	
Dense Select Structural	2"-4" thick 5"-6" wide	2700	1500	90	660	2150	1,900,000	
Select Structural		2550	1400	90	565	2000	1,800,000	
Non-Dense Select Structural		2350	1200	90	480	1850	1,700,000	
No.1 Dense		1750	950	90	660	1900	1,800,000	
No.1		1650	900	90	565	1750	1,700,000	
No.1 Non-Dense		1500	800	90	480	1600	1,600,000	
No.2 Dense		1450	775	90	660	1750	1,700,000	
No.2		1250	725	90	565	1600	1,600,000	
No.2 Non-Dense		1150	675	90	480	1500	1,400,000	
No.3		750	425	90	565	925	1,400,000	
Stud	775	425	90	565	925	1,400,000		
Dense Select Structural	2"-4" thick 8" wide	2450	1350	90	660	2050	1,900,000	
Select Structural		2300	1300	90	565	1900	1,800,000	
Non-Dense Select Structural		2100	1100	90	480	1750	1,700,000	
No.1 Dense		1650	875	90	660	1800	1,800,000	
No.1		1500	825	90	565	1650	1,700,000	
No.1 Non-Dense		1350	725	90	480	1550	1,600,000	
No.2 Dense		1400	675	90	660	1700	1,700,000	
No.2		1200	650	90	565	1550	1,600,000	
No.2 Non-Dense		1100	600	90	480	1450	1,400,000	
No.3		700	400	90	565	875	1,400,000	
Dense Select Structural	2"-4" thick 10" wide	2150	1200	90	660	2000	1,900,000	
Select Structural		2050	1100	90	565	1850	1,800,000	
Non-Dense Select Structural		1850	950	90	480	1750	1,700,000	
No.1 Dense		1450	775	90	660	1750	1,800,000	
No.1		1300	725	90	565	1600	1,700,000	
No.1 Non-Dense		1200	650	90	480	1500	1,600,000	
No.2 Dense		1200	625	90	660	1650	1,700,000	
No.2		1050	575	90	565	1500	1,600,000	
No.2 Non-Dense		950	550	90	480	1400	1,400,000	
No.3		600	325	90	565	850	1,400,000	
Dense Select Structural	2"-4" thick 12" wide	2050	1100	90	660	1950	1,900,000	
Select Structural		1900	1050	90	565	1800	1,800,000	
Non-Dense Select Structural		1750	900	90	480	1700	1,700,000	
No.1 Dense		1350	725	90	660	1700	1,800,000	
No.1		1250	675	90	565	1600	1,700,000	
No.1 Non-Dense		1150	600	90	480	1500	1,600,000	
No.2 Dense		1150	575	90	660	1600	1,700,000	
No.2		975	550	90	565	1450	1,600,000	
No.2 Non-Dense		900	525	90	480	1350	1,400,000	
No.3		575	325	90	565	825	1,400,000	
SOUTHERN PINE (Dry service conditions — 19% or less moisture content)								
Dense Structural 86	2"-4" thick	2600	1750	155	660	2000	1,800,000	SPIB
Dense Structural 72	2"& wider	2200	1450	130	660	1650	1,800,000	
Dense Structural 65		2000	1300	115	660	1500	1,800,000	
SOUTHERN PINE (Wet service conditions)								
Dense Structural 86	2-1/2"-4" thick	2100	1400	145	440	1300	1,600,000	SPIB
Dense Structural 72	2-1/2"& wider	1750	1200	120	440	1100	1,600,000	
Dense Structural 65		1600	1050	110	440	1000	1,600,000	

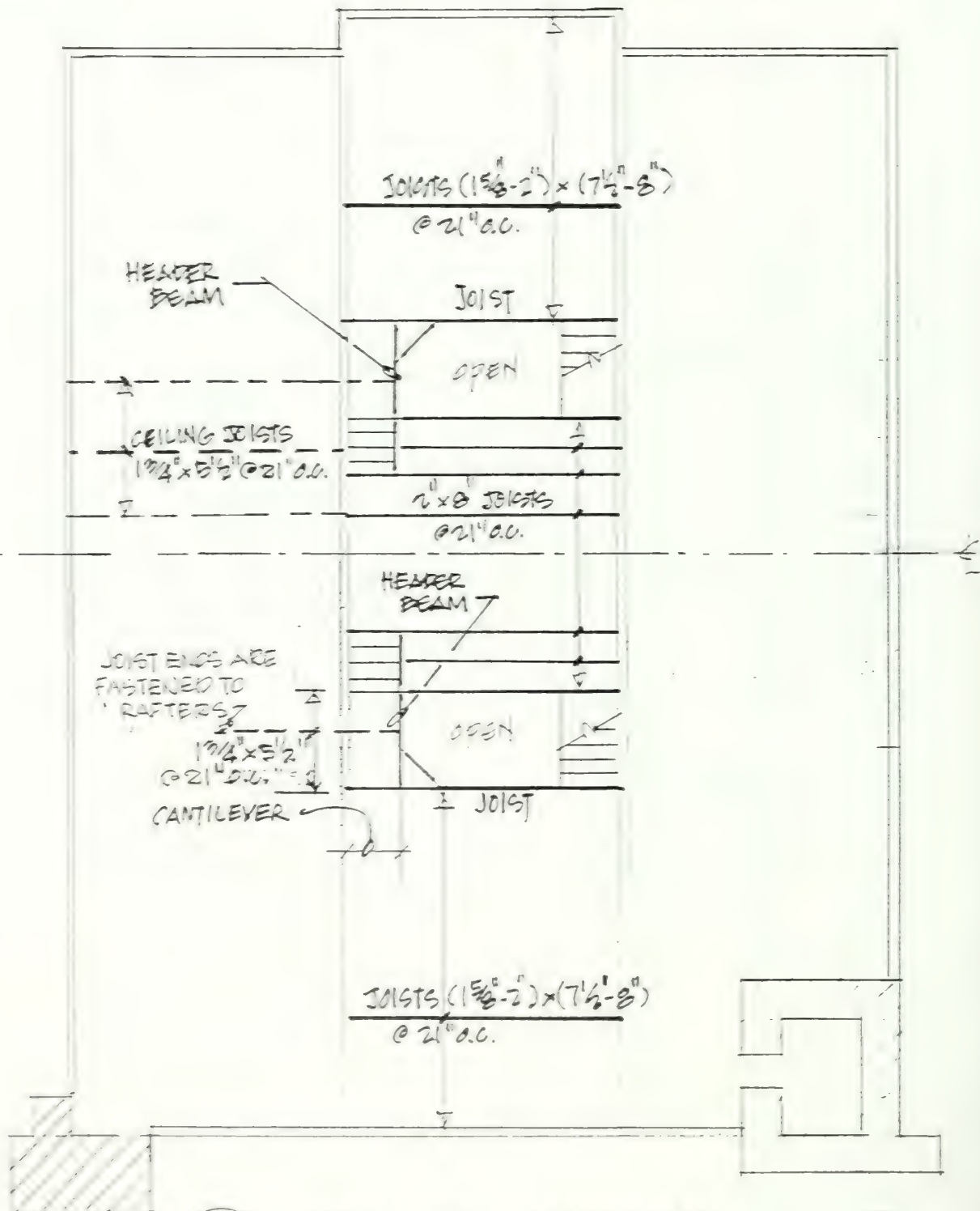
McMullan & Associates

Consulting Structural Engineers
8245 Boone Boulevard, Suite 290
Vienna, Virginia 22182-3828
Phone: (703) 556-0651

JQB #1672- CLARA BARTON HOUSE
SHEET NO. SK.1
CALCULATED BY E.L.
CHECKED BY
OF
DATE 5-1-86
DATE



1 ROOF FRAMING PLAN
SK.1 N.T.S.



THIRD FLOOR FRAMING PLAN

SK-2

McMullan & Associates

Consulting Structural Engineers
8245 Boone Boulevard, Suite 290
Vienna, Virginia 22182-3828
Phone: (703) 556-0651

JOB # 1672- CLARA BARTON HOUSE

SHEET NO. SK-3

OF

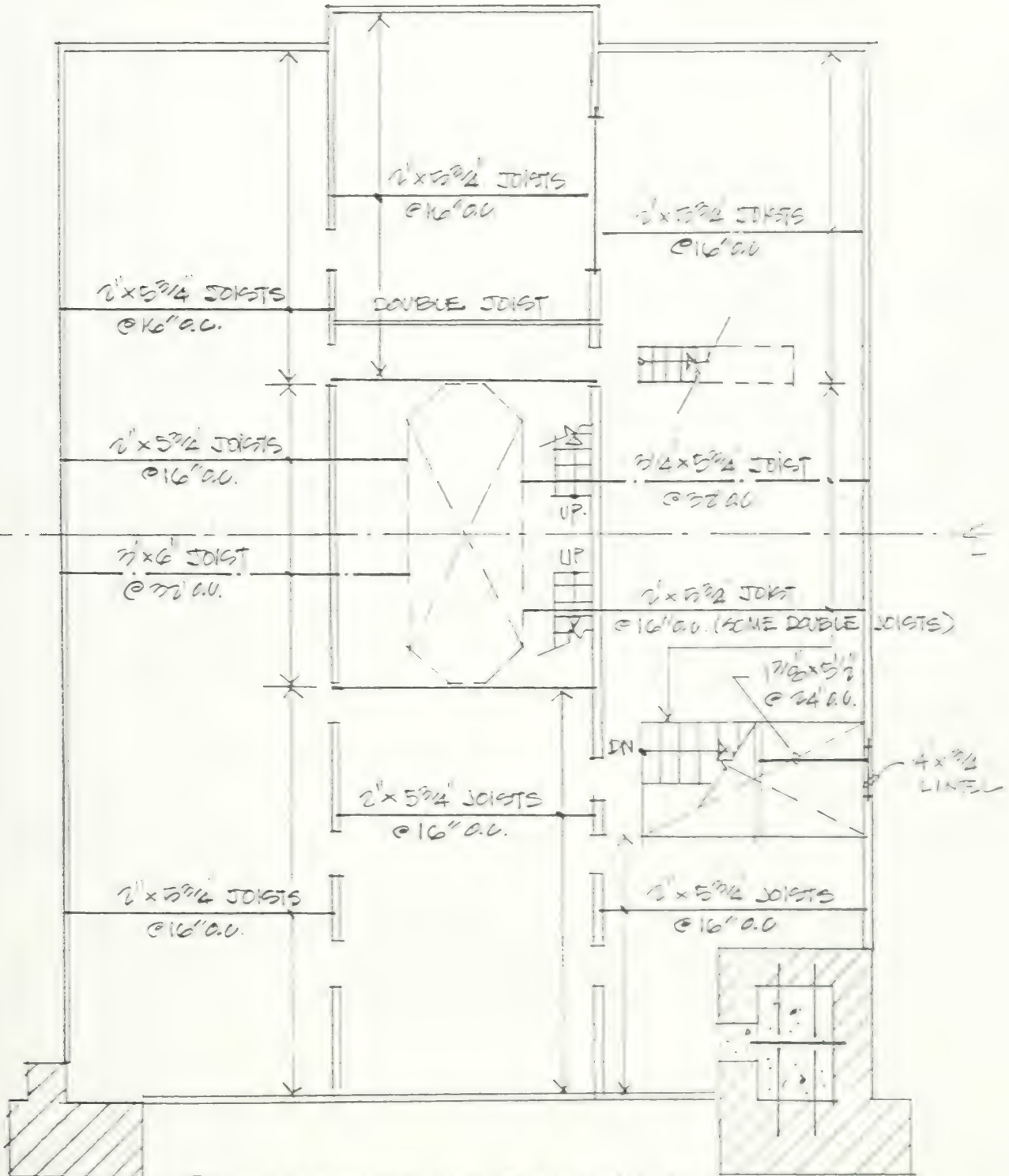
CALCULATED BY DL

DATE

5.20.86

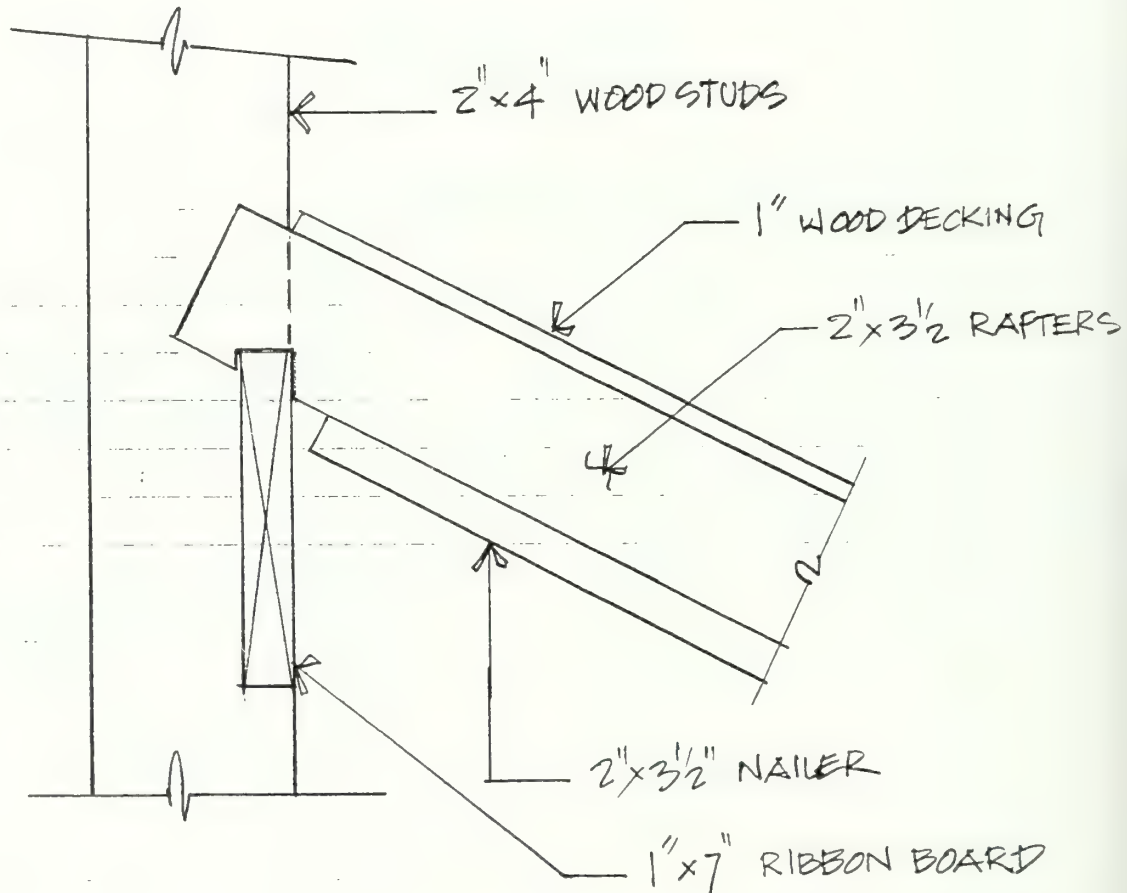
CHECKED BY

DATE



1
SK-3

SECOND FLOOR FRAMING PLAN

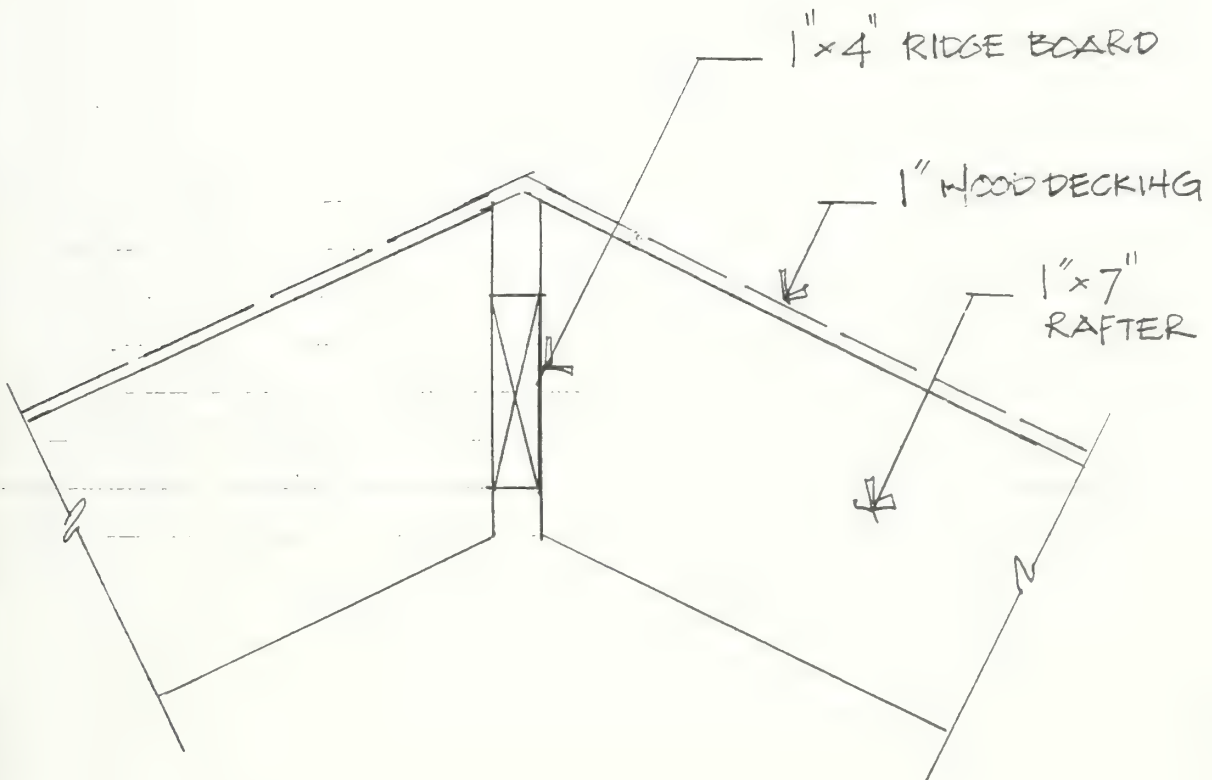


RAFTER / WALL STUD DET.

McMullan & Associates

Consulting Structural Engineers
8245 Boone Boulevard, Suite 290
Vienna, Virginia 22182-3828
Phone: (703) 556-0651

JOB # K672-CLARA BARTON HOUSE
SHEET NO. SK.5 OF
CALCULATED BY DL. DATE 5.20.96
CHECKED BY DATE

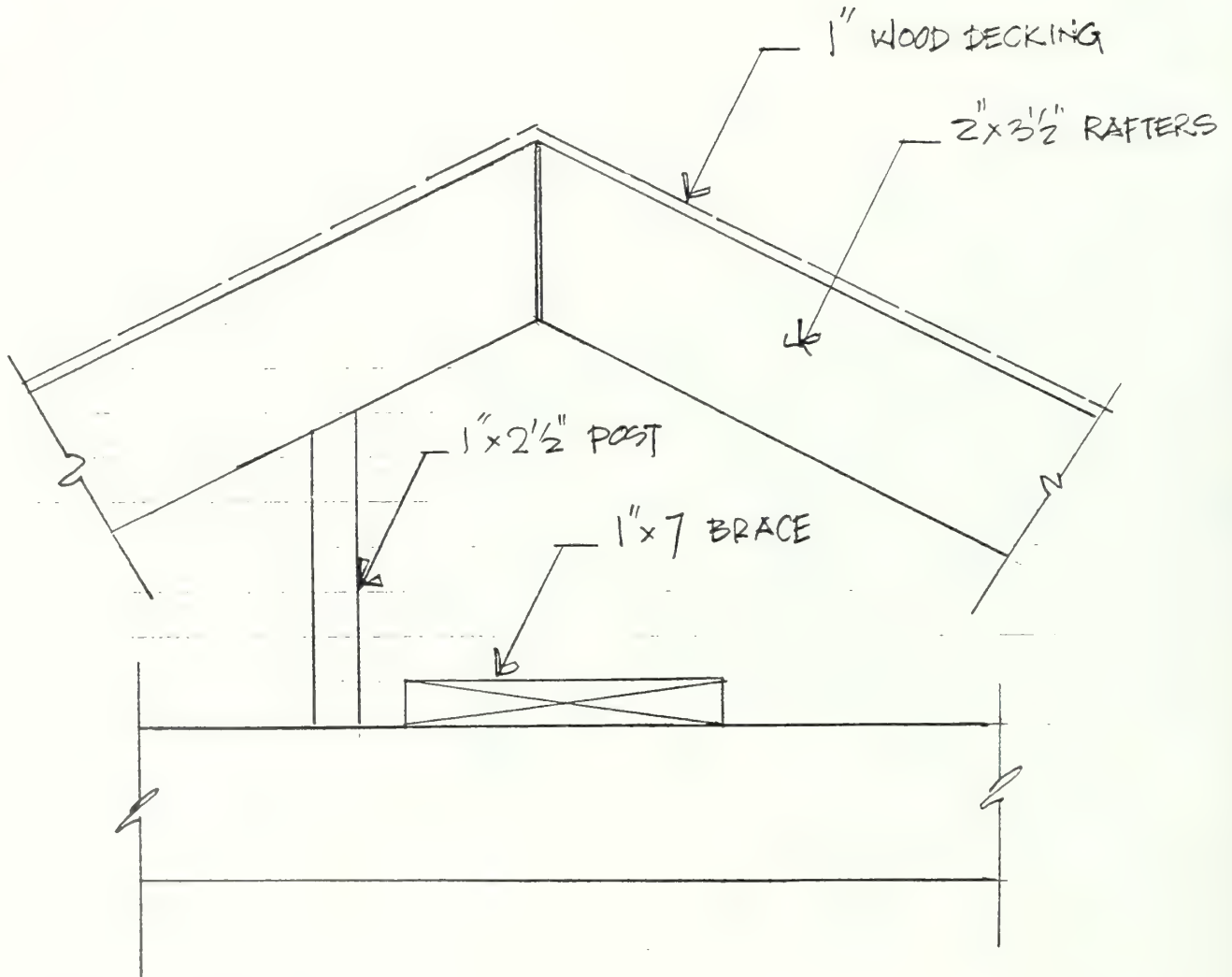


SLOPED CEILING ROOF DET.

McMullan & Associates

Consulting Structural Engineers
8245 Boone Boulevard, Suite 290
Vienna, Virginia 22182-3828
Phone: (703) 556-0651

JOB: #1672-CLARK BARTON HOUSE
SHEET NO. SK-6 OF
CALCULATED BY DL DATE 5.20.96
CHECKED BY DATE

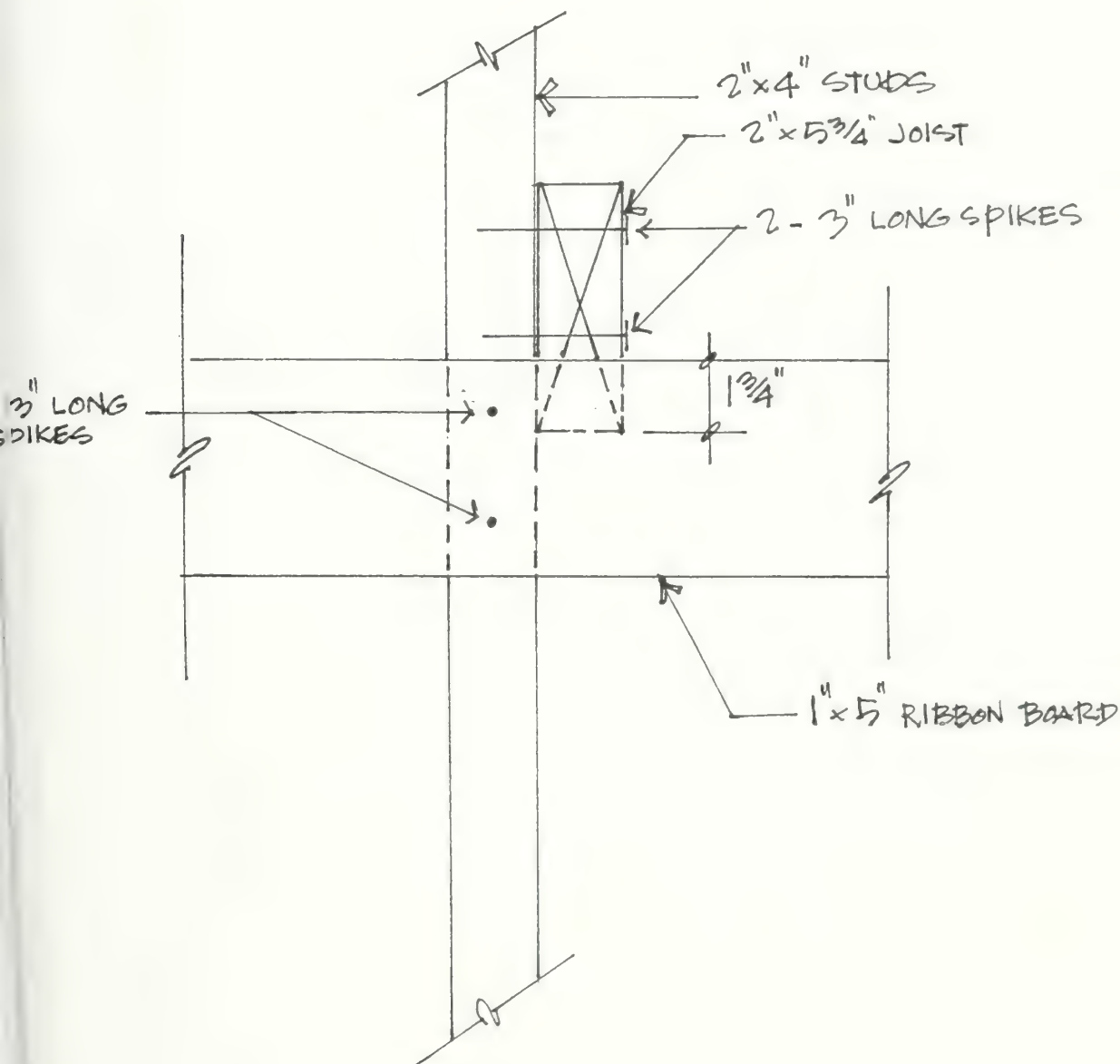


1 FLAT CEILING ROOF DET.
SK-6

McMullan & Associates, Inc

CONSULTING ENGINEERS
8381 Old Courthouse Road, Suite 350
Vienna, Virginia 22182
(703) 556-0651

JOB # 1672 - CLARA BARTON HOUSE.
SHEET NO. SK.7 OF
CALCULATED BY DL. DATE 5.20.96
CHECKED BY DATE



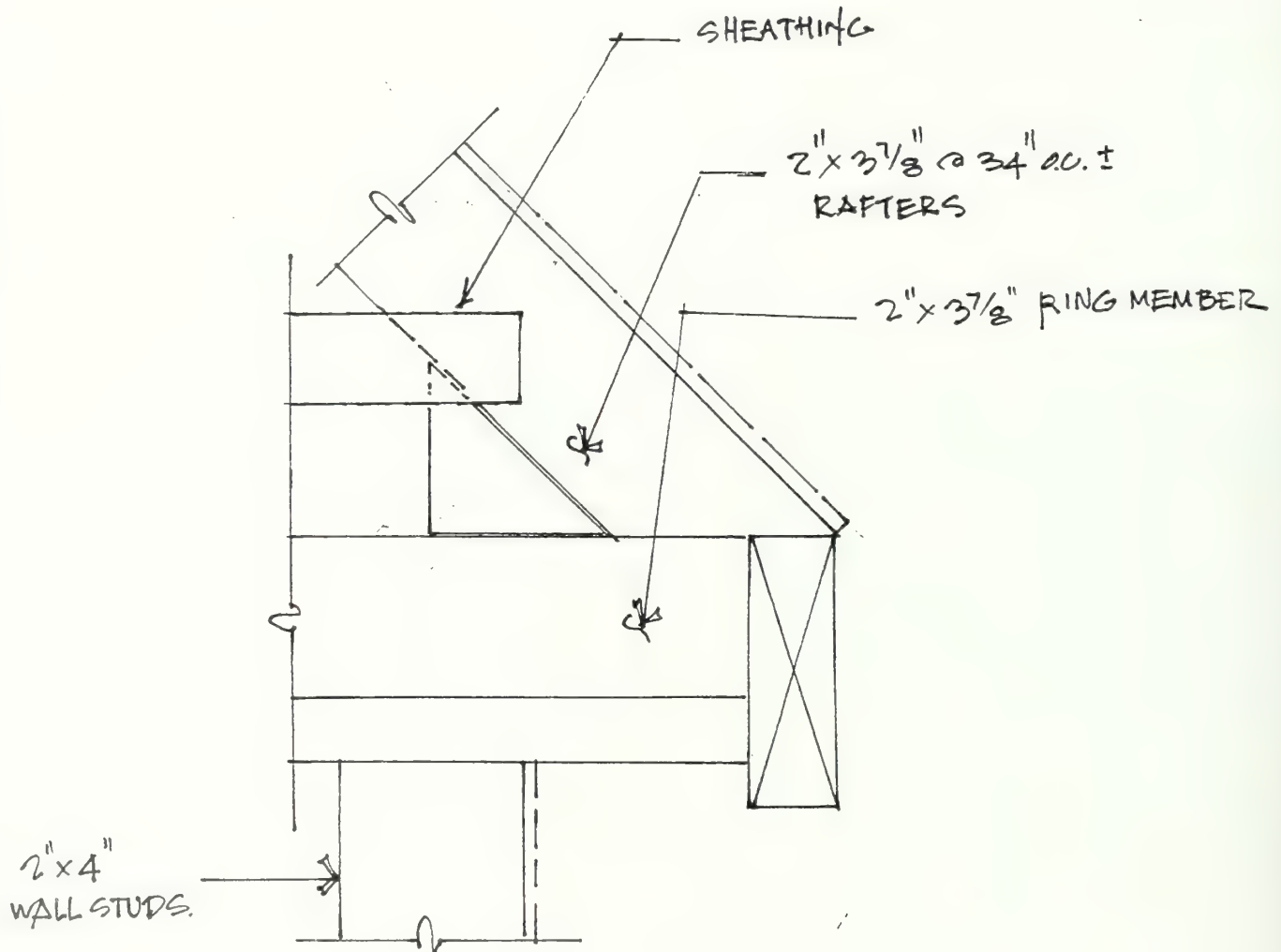
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SK.7

JOIST BEARING DET.

McMullan & Associates, Inc.

CONSULTING ENGINEERS
8381 Old Courthouse Road, Suite 350
Vienna, Virginia 22182
(703) 556-0651

JOB # 1672 - CLARK BARTON HOUSE
SHEET NO. SK-8 OF
CALCULATED BY DL. DATE 5.20.96
CHECKED BY DATE



1 PYRAMID RAFTER DET.
SK-8

McMullan & Associates, Inc

CONSULTING ENGINEERS

8381 Old Courthouse Road, Suite 350

Vienna, Virginia 22182

(703) 556-0651

JOB

#1672-CLARA BARTON HOUSE

SHEET NO.

SK.9

OF

CALCULATED BY


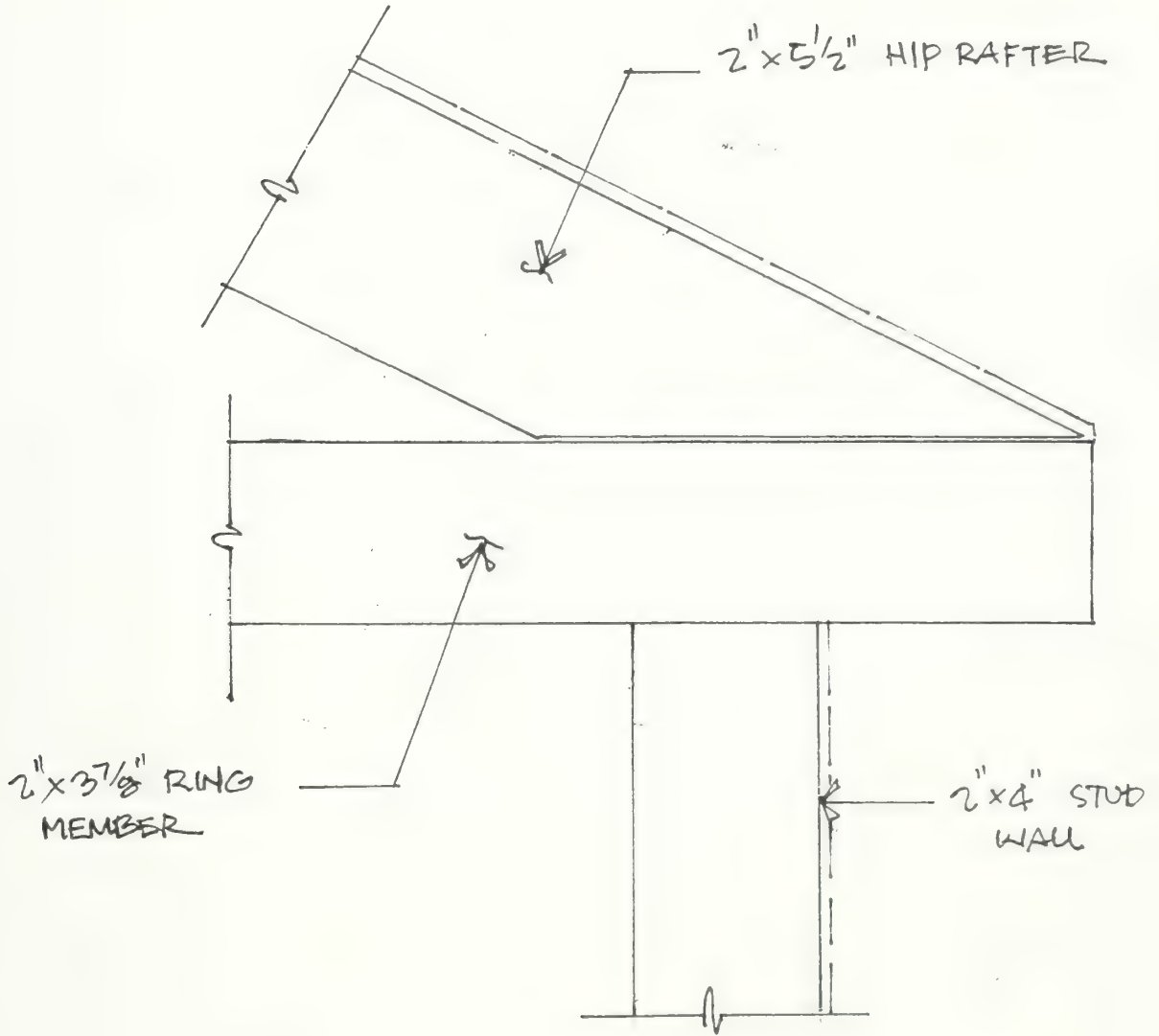
DL.

DATE _____

5.20.96

CHECKED BY

DATE _____



PYRAMID HIP RAFTER DET.

End of Structural Calculations

Appendix E Cost Estimates

E. Cost Estimate

At the time of printing this report,
the cost estimate was not available.

Blank Sheet

Appendix F Condition Survey of Existing Building Equipment

F. Condition Survey of Existing Building Equipment

ITEM: Boiler

DESCRIPTION: Sectional oil-fired induced-draft hot water type.

LOCATION: Located in free-standing boiler shed near northwest site boundary.

CAPACITY: 426,000 BTUH (net water)

MANUFACTURER/MODEL: H.B. Smith Model 2500L with Carlin Model 301CRD burner

CONDITION: Good

ESTIMATED INSTALLATION DATE: Unknown (to be determined)

ESTIMATED SERVICE LIFE EXPECTANCY: 30-35 years

NOTED DEFICIENCIES:

1. Combustion air intake location is not per code requirements. Code requires high and low intake; only high intake is provided.
2. Metal chimney does not have ventilated roof thimble at roof penetration.
3. Chimney appears to terminate less than 10 feet from property line.
4. Boiler lacks temperature gauge and pressure gauge.
5. Makeup water connection lacks shutoff valves on both sides of backflow preventor.

ITEM:	Chilled Water Evaporator
DESCRIPTION:	Wall-mounted coil-in-coil type
LOCATION:	Located within building - wall-hung in basement
CAPACITY:	41,000 BTUH (approx); 8 GPM
MANUFACTURER/MODEL:	Carrier
CONDITION:	Fair to poor
ESTIMATED INSTALLATION DATE:	1981 (estimated)
ESTIMATED SERVICE LIFE EXPECTANCY:	15 - 20 years
NOTED DEFICIENCIES:	Unit is aged and appears to be at end of useful life; unit contains CFC refrigerant.

ITEM:	Chilled Water Piping
DESCRIPTION:	Combination of steel pipe with screw fittings and copper tubing with soldered joints.
LOCATION:	Located within building
CAPACITY:	Various
MANUFACTURER/MODEL:	N/A
CONDITION:	Fair to good
ESTIMATED INSTALLATION DATE:	Unknown (to be determined)
ESTIMATED SERVICE LIFE EXPECTANCY:	25 years
NOTED DEFICIENCIES:	Numerous sections of piping are uninsulated.

ITEM:	Chilled Water Condensing Unit
DESCRIPTION:	Grade-mounted reciprocating propeller fan type
LOCATION:	Located near southeast side of building
CAPACITY:	41,000 BTUH (approximate)
MANUFACTURER/MODEL:	Carrier
CONDITION:	Fair
ESTIMATED INSTALLATION DATE:	1981 (estimated)
ESTIMATED SERVICE LIFE EXPECTANCY:	15 - 20 years
NOTED DEFICIENCIES:	Unit is aged and appears to be at end of useful life.

ITEM:	Custom Hot Water Unit Heaters
DESCRIPTION:	Floor-mounted custom fan/coil type enclosed within replicas of pot belly stoves.
LOCATION:	Located in selected rooms within building - see schematic diagram.
CAPACITY:	Various
MANUFACTURER/MODEL:	Modine; various model numbers.
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Unknown (to be determined)
ESTIMATED SERVICE LIFE EXPECTANCY:	20 years
NOTED DEFICIENCIES:	Operation of some control/shutoff valves is suspect.

ITEM:	Fan Coil Units
DESCRIPTION:	Floor-mounted 4-pipe console type.
LOCATION:	Located in selected rooms within building - see schematic diagram.
CAPACITY:	Various
MANUFACTURER/MODEL:	Trane; various model numbers
CONDITION:	Fair to Good
ESTIMATED INSTALLATION DATE:	Unknown (to be determined)
ESTIMATED SERVICE LIFE EXPECTANCY:	20 years
NOTED DEFICIENCIES:	Units need internal cleaning; operation of some control/shutoff valves is suspect.

ITEM:	Heating Hot Water Piping
DESCRIPTION:	Combination of steel pipe with screw fittings and copper tubing with soldered joints.
LOCATION:	Located in free-standing boiler shed near northwest site boundary, underground and within building.
CAPACITY:	Various
MANUFACTURER/MODEL:	N/A
CONDITION:	Fair to Good
ESTIMATED INSTALLATION DATE:	Unknown (to be determined)
ESTIMATED SERVICE LIFE EXPECTANCY:	25 years
NOTED DEFICIENCIES:	Numerous sections of piping are uninsulated.

ITEM:	Heating Hot Water Pump
DESCRIPTION:	Centrifugal in-line circulator
LOCATION:	Located in free-standing boiler shed near northwest site boundary.
CAPACITY:	45 GPM (estimated)
MANUFACTURER/MODEL:	Bell & Gossett Model P57270.
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Unknown (to be determined)
ESTIMATED SERVICE LIFE EXPECTANCY:	10 - 15 years
NOTED DEFICIENCIES:	None

ITEM:	Electric Water Heater
DESCRIPTION:	Domestic hot water heating
LOCATION:	Located in basement
CAPACITY:	52 gallon, 4.5 kw, 240 VAC
MANUFACTURER/MODEL:	RUUD, Model #___ (unknown to be determined)
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Unknown (to be determined).
ESTIMATED SERVICE LIFE EXPECTANCY:	5 - 7 years
NOTED DEFICIENCIES:	None

ITEM:	Sump Pump
DESCRIPTION:	Extended shaft sump pump for ground water and AC condensate removal
LOCATION:	Located in basement sump pit
CAPACITY:	1/3 horsepower
MANUFACTURER/MODEL:	DAYTON, Model #___ (unknown to be determined)
CONDITION:	Fair
ESTIMATED INSTALLATION DATE:	Unknown (to be determined)
ESTIMATED SERVICE LIFE EXPECTANCY:	2 - 5 years
NOTED DEFICIENCIES:	None

ITEM:	Power Company Service to Pole
DESCRIPTION:	Overhead cable 5000 volts
LOCATION:	On east side of house
CAPACITY:	100 Amperes
MANUFACTURER/MODEL:	Unknown
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	1973
ESTIMATED SERVICE LIFE EXPECTANCY:	20 years
NOTED DEFICIENCIES:	None

ITEM:	Power Company Pole
DESCRIPTION:	Pressure treated class 4/40 approximately 30 feet tall
LOCATION:	East side of house
CAPACITY:	400 pounds
MANUFACTURER/MODEL:	Unknown
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	1973
ESTIMATED SERVICE LIFE EXPECTANCY:	40 years
NOTED DEFICIENCIES:	None

ITEM:	Power Company Service Transformer
DESCRIPTION:	Oil filled, 1 phase, 5000 volt primary - 120/240 volt secondary
LOCATION:	Pole mounted on power company
CAPACITY:	25 Kilovolt Amperes
MANUFACTURER/MODEL:	General Electric
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Unknown
ESTIMATED SERVICE LIFE EXPECTANCY:	40 years
NOTED DEFICIENCIES:	None

ITEM:	Power Company Service Cable
DESCRIPTION:	Type use (underground service entrance) cable with 2 - 4/0 aluminum conductors plus 1-No. 1 ground/neutral aluminum conductor.
LOCATION:	Overhead from pole to meter on side of house and from meter to service trough
CAPACITY:	315 Amperes per table 310-17 of the 1993 National Electric Code
MANUFACTURER/MODEL:	South Wire Corporation
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Unknown
ESTIMATED SERVICE LIFE EXPECTANCY:	30 years
NOTED DEFICIENCIES:	None

ITEM:	Power Company Meter
DESCRIPTION:	Watt Hour Meter provided by power company
LOCATION:	East side of house approximately 5 feet above the ground
CAPACITY:	N/A
MANUFACTURER/MODEL:	Unknown
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Unknown
ESTIMATED SERVICE LIFE EXPECTANCY:	Unlimited
NOTED DEFICIENCIES:	None

ITEM:	Service Trough
DESCRIPTION:	8 inch X 8 inch X 6 feet long
LOCATION:	In basement
CAPACITY:	16 cables up to size 2/0 in size
MANUFACTURER/MODEL:	Unknown - usually fabricated by a sheet metal shop
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Unknown
ESTIMATED SERVICE LIFE EXPECTANCY:	Unlimited
NOTED DEFICIENCIES:	None

ITEM:	Panel P-3
DESCRIPTION:	Surface-mounted 120/240 Volt, single phase, 3-Wire, 100 Ampere with 100 Ampere main circuit breaker with 20 pole spaces and 20 pole spaces used (see attached panel schedule).
LOCATION:	Basement
CAPACITY:	100 Amperes
MANUFACTURER/MODEL:	General Electric
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Early 1970's
ESTIMATED SERVICE LIFE EXPECTANCY:	40 - 50 Years
NOTED DEFICIENCIES:	None

ITEM:	Main Service Panel P-1
DESCRIPTION:	Surface-mounted 120/240 Volt, single phase, three wire, 200 Ampere with 200 ampere main circuit breaker. Panel is basically a 20 pole panel; however, it presently has 33 pole spaces used. (This is possible because of the use of "piggy back" breakers.) See attached copy of panel schedule.
LOCATION:	Basement
CAPACITY:	200 Amperes
MANUFACTURER/MODEL:	General Electric
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Early 1970's
ESTIMATED SERVICE LIFE EXPECTANCY:	40 - 50 Years
NOTED DEFICIENCIES:	None

ITEM:	Panel P-2
DESCRIPTION:	Surface-mounted 120/240 Volt, single phase, 3-Wire, 200 Ampere with 200 Ampere main circuit breaker. Panel is basically a 20 pole panel but at present has 29 pole spaces used. (This is possible through the use of "piggy back" breakers.) See attached panel schedule.
LOCATION:	Basement
CAPACITY:	200 Amperes
MANUFACTURER/MODEL:	General Electric
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Early 1970's
ESTIMATED SERVICE LIFE EXPECTANCY:	40 - 50 Years
NOTED DEFICIENCIES:	None

ITEM:	Bx Branch Wiring
DESCRIPTION:	Armored cable with phase and ground conductors in a flexible metal sheath.
LOCATION:	Throughout
CAPACITY:	Could not be determined since wire size label could not be read.
MANUFACTURER/MODEL:	Unknown
CONDITION:	The armored sheath was generally in good condition; however, we were unable to determine the condition of the insulation on the wire.
ESTIMATED INSTALLATION DATE:	At least 40 - 50 years ago
ESTIMATED SERVICE LIFE EXPECTANCY:	30 - 40 years if not stressed (overloaded)
NOTED DEFICIENCIES:	Insulation on wiring was brittle in outlet boxes thus indicating that probably the same condition exists inside the sheath. This is not a problem if the cable is not moved around or a short circuit is not incurred on the system.

ITEM:	Branch Wiring - Romex
DESCRIPTION:	Romex is a trade name for non-metallic sheathed cable and is commonly used in both residential and commercial construction. Construction consists of an insulated phase and neutral conductor and is non-insulated ground conductor housed in a neoprene based sheath.
LOCATION:	Throughout
CAPACITY:	20 Amperes minimum
MANUFACTURER/MODEL:	Varies, Southwire, Pirelli, General Cable
CONDITION:	Very good - looks like no more than 5-6 years old
ESTIMATED INSTALLATION DATE:	See above
ESTIMATED SERVICE LIFE EXPECTANCY:	20 - 30 Years
NOTED DEFICIENCIES:	None

ITEM:	Fire Alarm System - Control Panel
DESCRIPTION:	Surface-mounted control panel with control module and power to serve up to four zones of manual and automatic initiating devices and up to 20 alarm devices. There is a battery backup within the cabinet for code compliance.
LOCATION:	Basement
CAPACITY:	See above
MANUFACTURER/MODEL:	Pyrotronics System 3
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Unknown
ESTIMATED SERVICE LIFE EXPECTANCY:	Unlimited except for batteries which should be replaced every 5 years.
NOTED DEFICIENCIES:	No provision for ADA strobes which would indicate system is at least 8 - 10 years old.

ITEM:	Fire Alarm System - Smoke Detectors
DESCRIPTION:	Surface/ceiling-mounted, photoelectric type with integral indicating light on base.
LOCATION:	Throughout
CAPACITY:	N/A
MANUFACTURER/MODEL:	Pyrotronics Model PE-3
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Unknown
ESTIMATED SERVICE LIFE EXPECTANCY:	Unlimited if cleaned on a regular basis
NOTED DEFICIENCIES:	None

ITEM:	Fire Alarm System - Bells
DESCRIPTION:	10" diameter, red color, surface-mounted 24 Volt operating current rated at 87 decibels at 10 feet.
LOCATION:	Throughout
CAPACITY:	Not applicable
MANUFACTURER/MODEL:	Pyrotronics BDC-10
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Unknown
ESTIMATED SERVICE LIFE EXPECTANCY:	Unlimited
NOTED DEFICIENCIES:	None

ITEM:	Fire Alarm System - Pullstations
DESCRIPTION:	Manual, slide type device - red with white letters containing a normally open toggle switch which is activated when cover is pulled down. This initiates a local alarm only.
LOCATION:	Throughout
CAPACITY:	Not applicable
MANUFACTURER/MODEL:	Pyrotronics MS-151
CONDITION:	Good
ESTIMATED INSTALLATION DATE:	Unknown
ESTIMATED SERVICE LIFE EXPECTANCY:	Unlimited
NOTED DEFICIENCIES:	None

End of Condition Survey of Existing Building Equipment

Appendix G Electrical Test Results



GHT Chartered
Consulting Engineers

4301 North Fairfax Dr., Suite 550
Arlington, Virginia 22203-1627

703 243-1200
Fax 703 276-1376

January 17, 1997

Mr. Randy Skeirik, AIA
Oerhleim & Associates
1350 Connecticut Avenue, NW, Suite 412
Washington, DC 20036

Re: Clara Barton Electrical Systems Testing
GHT Project #94-038.04

Dear Randy:

Attached are the electrical test results, including insulation megger test records and electrical drawing identifying the electrical circuits and wiring types.

The following is our initial evaluation of the test result. Our final evaluation and recommendations will be included in the 95% submission of the Clara Barton HSR Report.

Should you have any questions, please do not hesitate to contact us.

Very truly yours,

GHT Chartered

Michael Galitsis
Project Manager

MG:bs

Enclosures

OERHLEIM & ASSOCIATES

JAN 17 1997

95% Submission Test Report

GHT retained the services of the Truland Systems corporation to:

- a. perform insulation tests on the electrical wiring system.
- b. Survey existing system and verify existing circuiting as shown on existing electrical drawings.
- c. Identifying wiring types and condition.
- d. Identify problem (or potential) areas and to recommend possible corrections.

Truland Systems Corporation performed the above (see attachments) and GHT has reviewed the survey report and makes the following assessment.

- A. The following circuits did not meet minimum insulation resistance tests and the wiring should be replaced.
 1. Panel P-1 circuit 14B - wiring failed test - should be replaced, reading was .8 and minimum should be 1k.
 2. Panel P-2 circuits 1 & 3 - wiring failed test - should be replaced, reading was 50 and minimum should be 1k.
 3. Panel P-2 circuit 13 - wiring failed test - should be replaced, reading was 300 and minimum should be 1k.
 4. Panel P-2 circuit 15B - wiring failed test - should be replaced - reading was 80 and minimum should be 1k.
 5. Panel P-2 circuit 19 - wiring failed test - should be replaced - reading was 90 and minimum should be 1k.
 6. Panel P-2 circuit 8 - wiring failed test - should be replaced - reading was 80 and minimum should be 1k.
- b. Item 5 of Truland's report listed specific problems that were discovered during the survey and recommendations for correcting or eliminating the problems.

GHT concurs with the recommended "Fixer" in this item.

T R U L A N D

RECEIVED

January 27, 1997

JAN 28 1997

Truland Service Corporation
520 Cherokee Avenue, Suite 204
Alexandria, Virginia 22312
Phone (703) 642-5222
Fax (703) 813-1668

North Carolina Office
301-172 Stonybrook Drive
Fayetteville, North Carolina 27604
Phone (919) 874-7447
Fax (919) 874-7446

GHT Limited
4301 North Fairfax Drive
Suite 550
Arlington, VA 22203-1627

GHT Limited

PROJECT: Clara Barton House

SUBJECT: Electrical System testing

Gentlemen:

Survey analysis and testing of the electrical system scope of work:

1. Survey the existing electrical system and verify accuracy of existing electrical drawings provided.
2. Identify and record wiring types, general conditions, connections and their locations. Locate junction boxes.
3. Propose methods for wiring performance test for review. Conform to and cite NEC and UL testing procedures..
4. Perform insulation wiring test on each type of electrical wiring (estimated 4 types) and document results.
5. Analyze and assess the information. Provide narrative description of the existing conditions, limitations, safety precautions, code compliance and recommended treatment to mitigate any adverse effect to the property.

Test Results for survey analysis :

1. We made corrections on the as-builts.
2. The wiring types were recorded on the as-builts. The general conditions were good. The connections and their locations were good except for some splices in the basement were twisted wrong which are corrected.
3. AVO megger model 559 used at 250V DC and tested every circuit from panel through every device.
4. We meggered complete circuit out of all panels.

5. Problems found:

- a. Tension clips that attach breaker to the buss in the old square D panels are weak and discolored on almost all breakers.
- b. A lot of 3 wire cables leave the panel with both circuits on the same phase. They are tied on a piggyback breaker.
- c. Just about all receptacles are not grounded with tail or self grounding type receptacles.
- d. Range receptacle in the basement apartment has the connector installed wrong.
- e. Track lighting in apartment canopy feed connection is installed improperly.
- f. Some receptacles were hooked up reverse polarity. (We corrected this problem).
- g. A couple of receptacles were broken. (We have already replaced these receptacles).
- h. Most of the boxes in the walls of apartments in the basement have broken romex clamps and BX cable.
- i. Some circuits were marked wrong on the drawings.
- j. Panel P2- circuit 13 has a megger reading of 300 meg. OHM. This circuit has already had a fire in a junction box above fixture on the 2nd floor.

Recommendations:

- a. The minimum correction needed is to replace all breakers.
- b. The minimum correction is to rewire the panels.
- c. The minimum correction is to add ground tails, but the receptacles are old and should be replaced with self grounding type.
- d. The minimum correction is to install connector on cable correctly.
- e. The minimum correction is to move track over 6" or relocate box.
- h. The minimum correction would be to take boxes apart and install BX clamps removed from new boxes.
- i. The drawings were marked as we went.
- j. I recommend that this circuit be investigated more.

Project Survey Requirements:

1. Remove each cover plate (estimated 270 locations) from fixtures, switches, receptacles, junction boxes, etc. and inspect and document wiring types and connections.
2. Remove sections of standard wiring types for insulation wiring test to determine condition. Document locations and make appropriate repairs to maintain circuits.
3. Using base drawings prepared under WO#2, create electrical wiring diagrams and document the existing conditions. Drawings to document location of wiring types, fixtures, switches, receptacles, junction boxes, panels, etc.

Results for project survey:

1. Most connections are with wire nuts, except most RHW splices are with solder and tape. Even these splices look good.
2. We did a insulation wiring test of the complete circuit.
3. We made any corrections on as-builts.

Acceptable readings for megger results:

The standard practice for our industry is for equipment and wire rated up to 1000 volts " that one megohm is widely used as a fair and acceptable lower limit for insulation resistance". Any megger reading a 1 megohm to infinity would be acceptable. All the readings we did are in an acceptable range.

Insulation Test Record

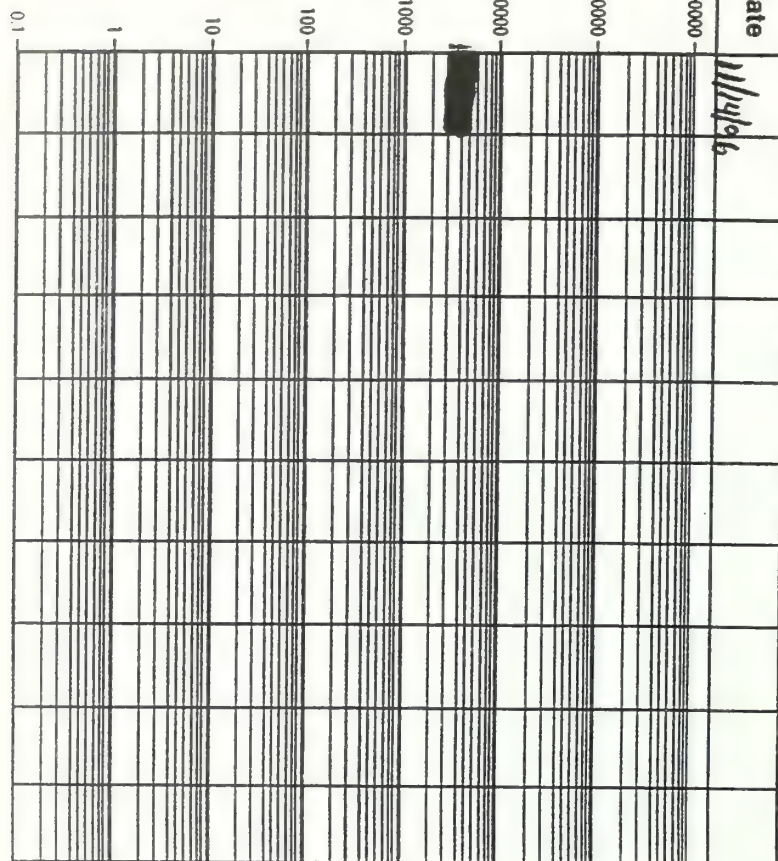
Equipment Range..... No. 1+3..... Rating 40A.....

Location 2nd FL STAFF Date installed PNL - P1
KITCHEN

MISQ

Date _____

11/14/06

[illegible]

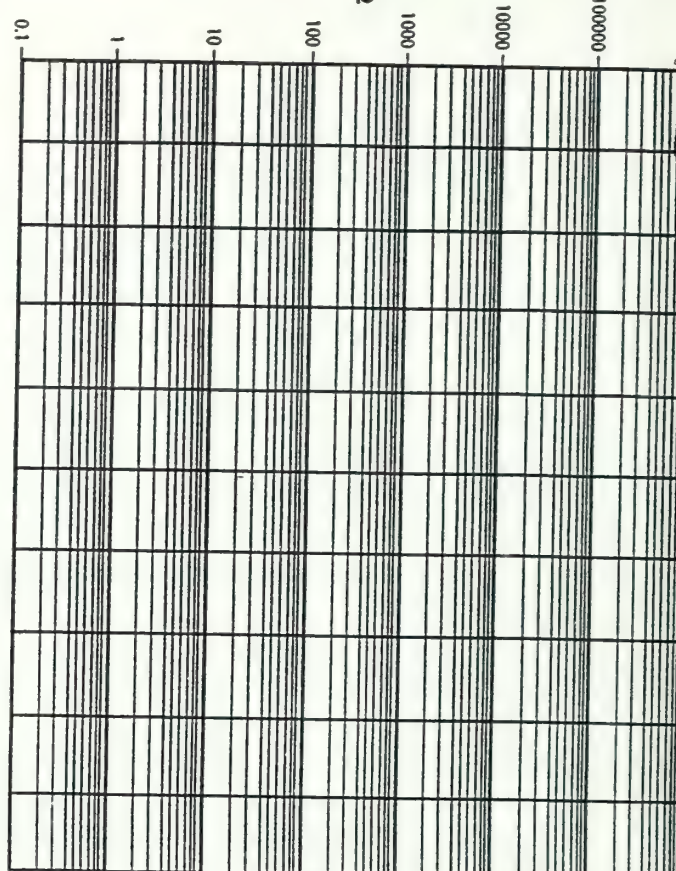
Insulation Test Record

Equipment Range No. 547 Rating 4

Location 2nd FL Hartman Date installed PNL-P.1
KITCHEN

MS

0.1

[illegible]



AVO INTERNATIONAL

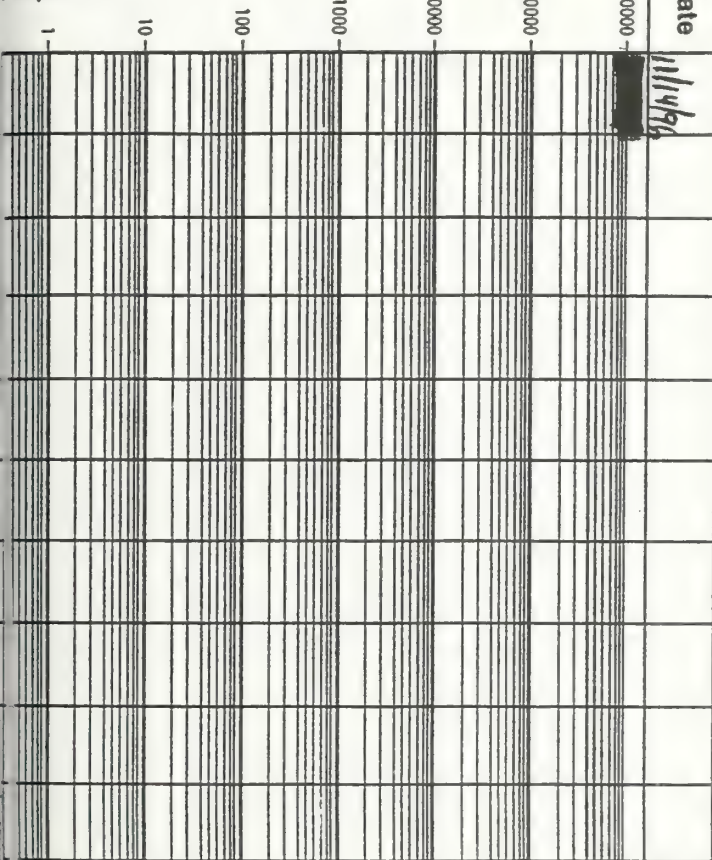
Insulation Test Record

Equipment Telephone Equip. No. 13 B Rating 15 A

Location Basement Date installed

Telephone & Security PNH-PI

Equipment



Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
------	-----------------------	----------------------------	------	----------	-------------------	--------------------------

11/14/96 250V INF.



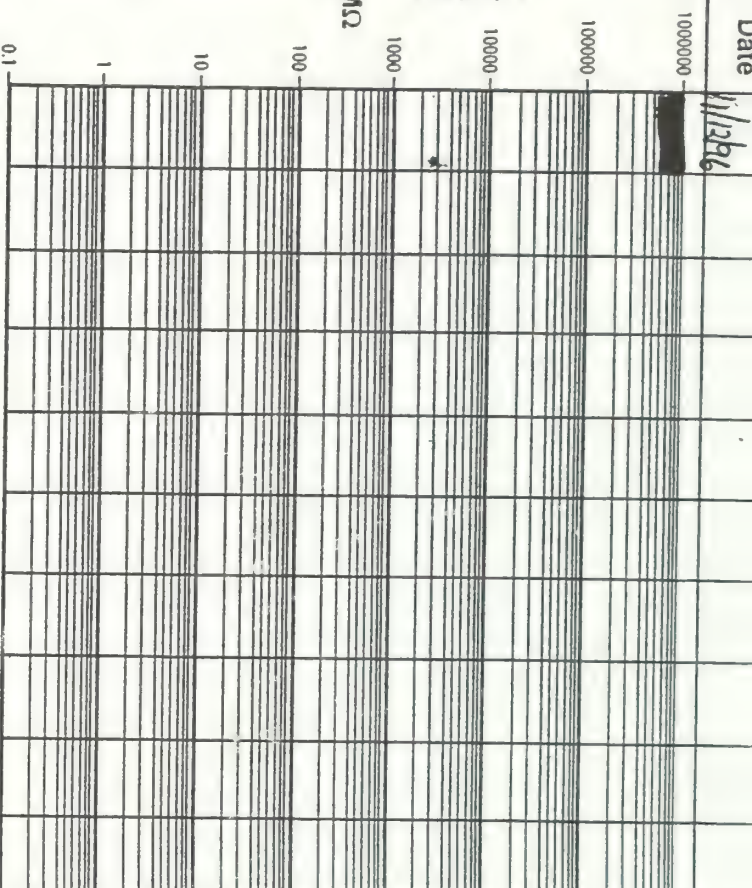
AVO INTERNATIONAL

Insulation Test Record

Equipment BATHRM. Heater No. 15+17 Rating 20 A

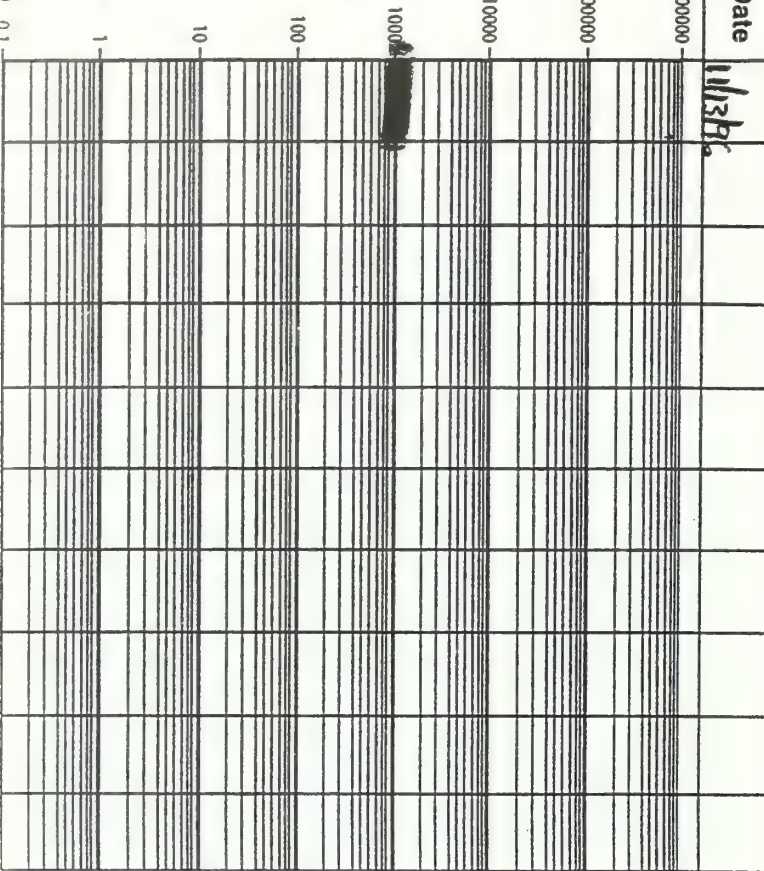
Location Basement APT Date installed

PNH-PI



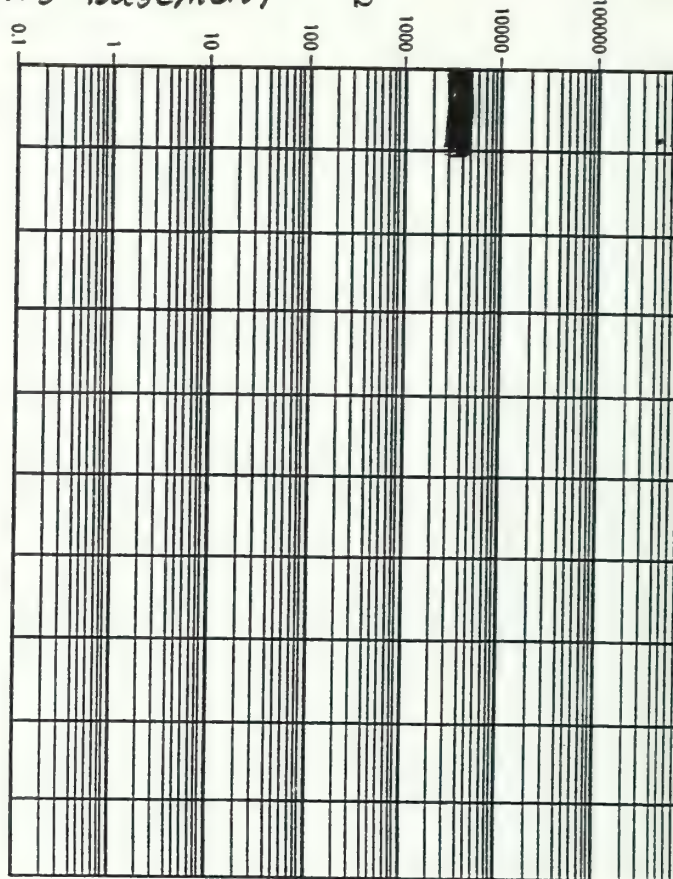
Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
------	-----------------------	----------------------------	------	----------	-------------------	--------------------------

11/12/96 250V 2K+

[illegible]

AVO **AVO INTERNATIONAL**
Insulation Test Record

Equipment Recept. & Lts. N° 198 Rating: _____
Location Small Volunteer Date installed _____
Guest Bedroom PNL-PI
TS Basement MA

[illegible]

Insulation Test Record

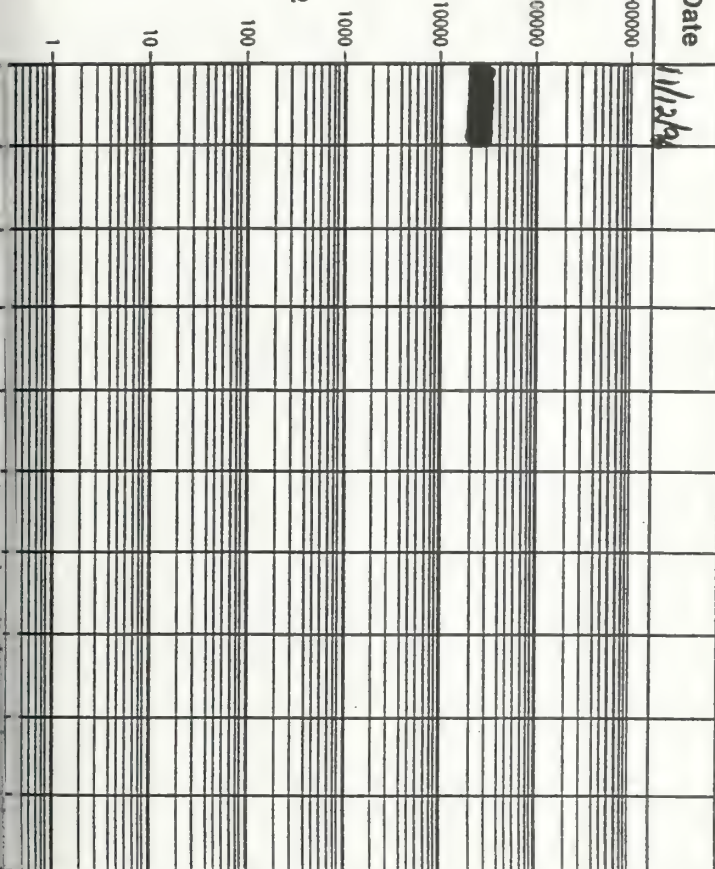
Equipment Clothes Dryer No. 2+4 Rating 30A

Location Basement Date installed

Date installed
PNL-PI

MS2

Date _____

[illegible]

Insulation Test Record

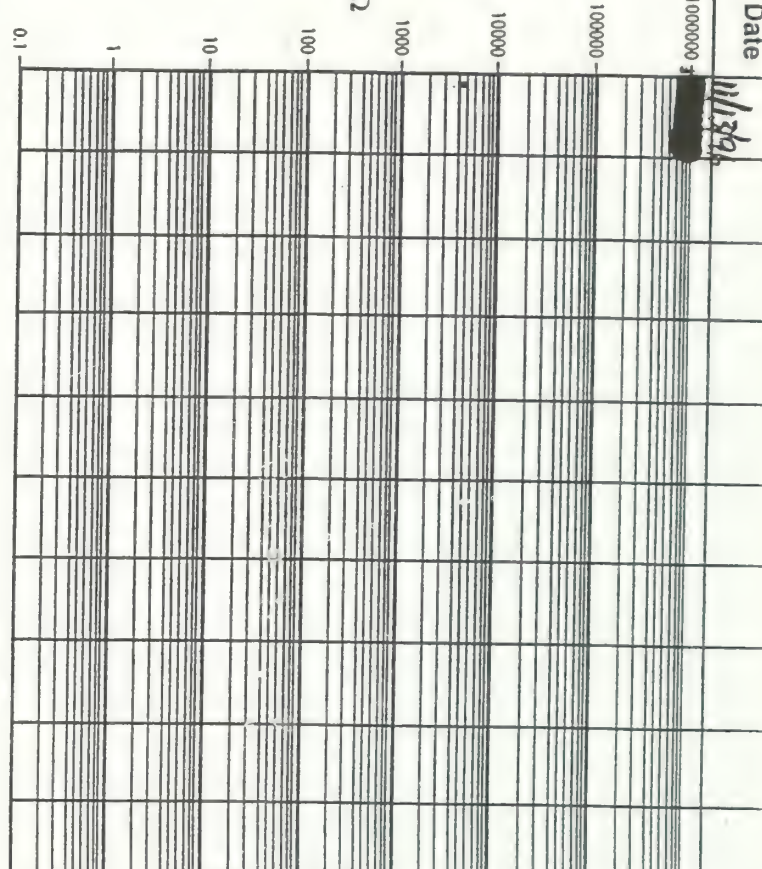
Equipment Receipt..... N° 6A..... Rating 15A

Location Basement Laundry Date installed _____

Location Basement Laundry Date installed PNH-PI

MS2

Date _____

[illegible]

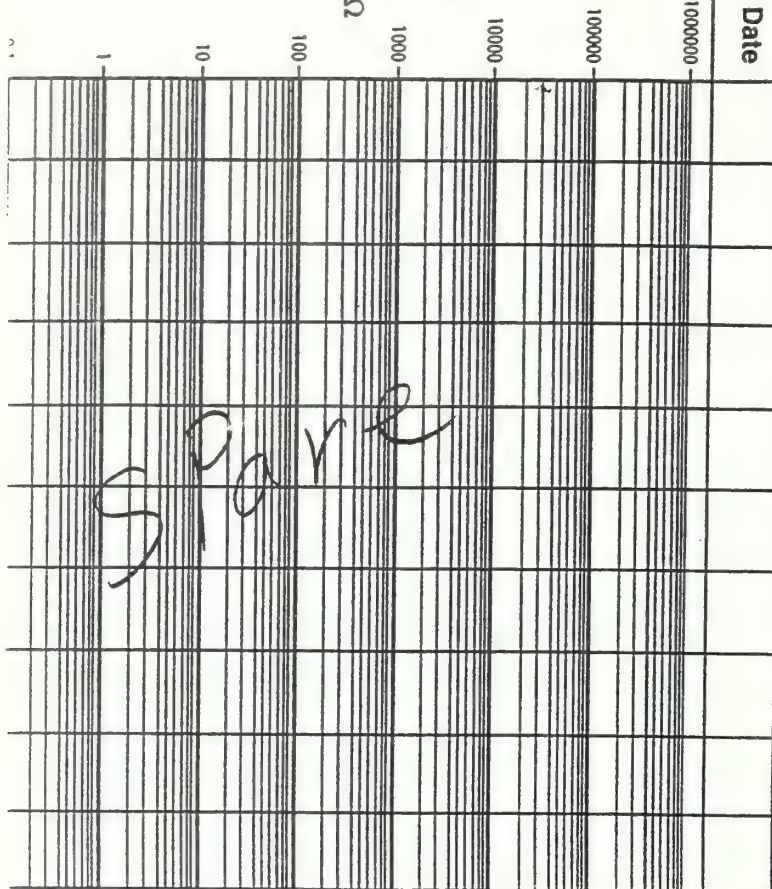
Insulation Test Record

Equipment Sparc No. 6B Rating 15A

Location spare Date installed
PNL-PI

MS2

Date _____

[illegible]

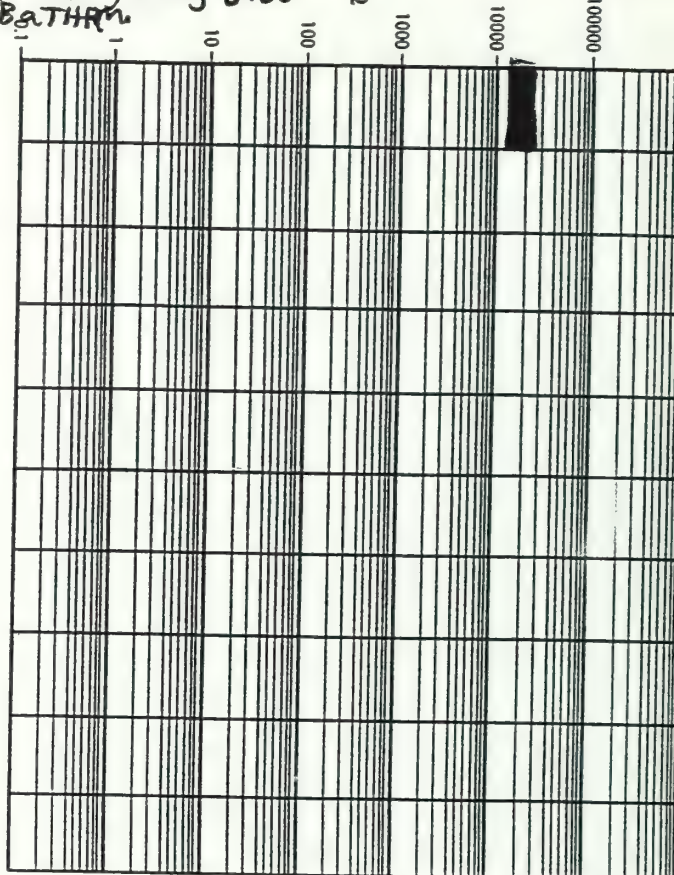
Insulation Test Record

Equipment Receipts + LIS N^o 8A Rating 1

Location Large Volunteer Date installed PNL-PI
GUEST BEDROOM STAFF
KITCHEN, Hall, old MD
BATHRM - 1000

MIS2

10000

[illegible]

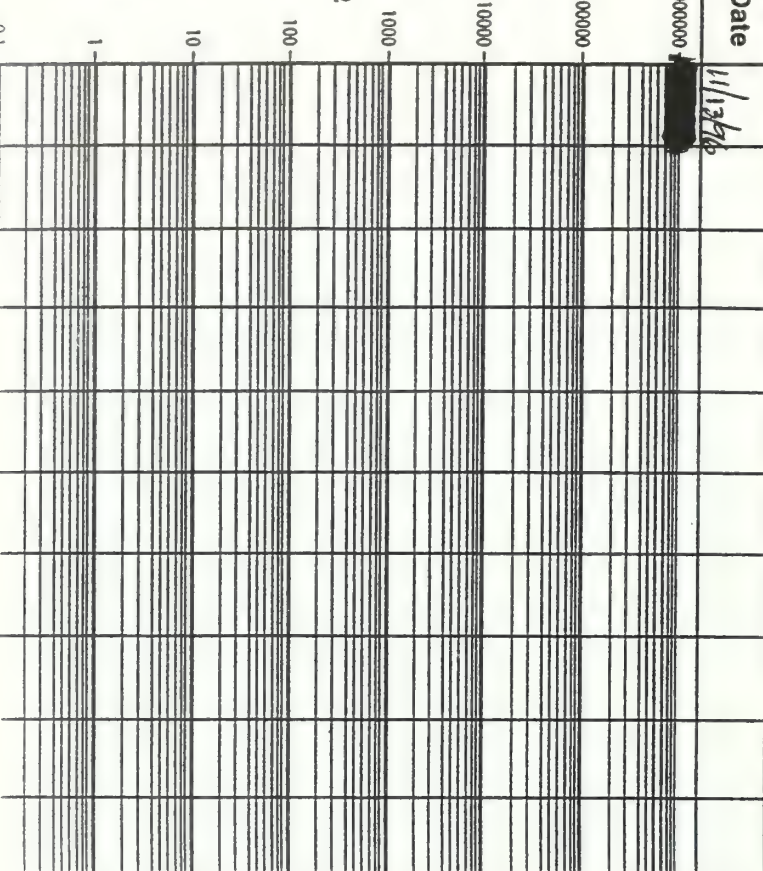
Insulation Test Record

Equipment Recept No. 10 B Rating 20 A
Location Basement Apt. Date installed
Kitchen 3 PNL-PI

MS2

Date _____

11/13/98

[illegible]

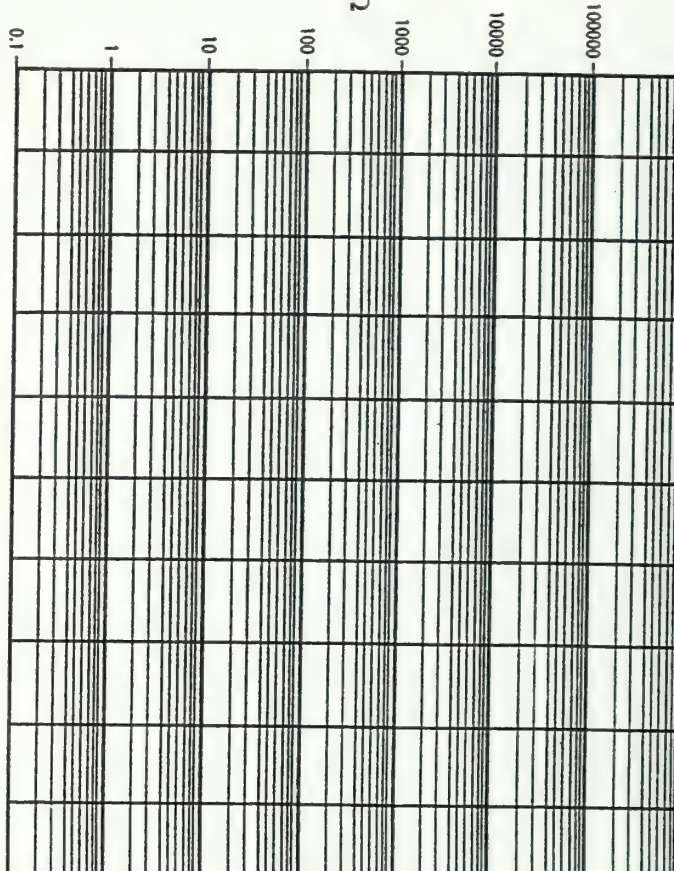
Insulation Test Record

Equipment Recept. No. 12A Rating 2
Location STAFF LUNCH Date installed PNL-PI
Rm. =

MIS

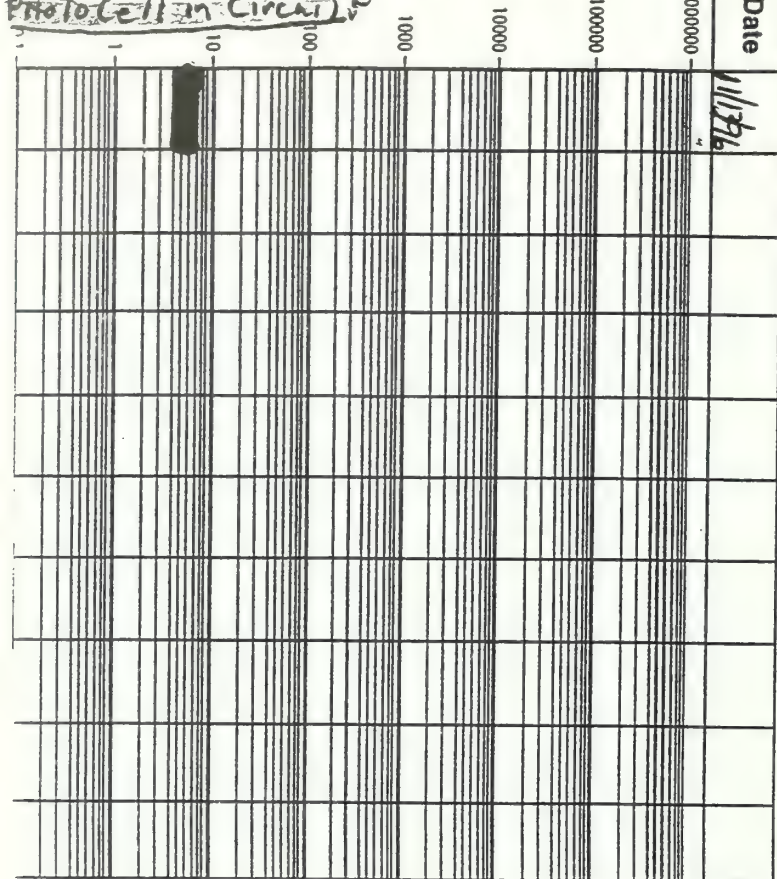
0.

11

[illegible]

Insulation Test Record

Equipment Security HTS N° 14B Rating 15A
Location Security HTS Date installed
Outside East PNL-PI
Photo Cell in Circuit

[illegible]

Insulation Test Record

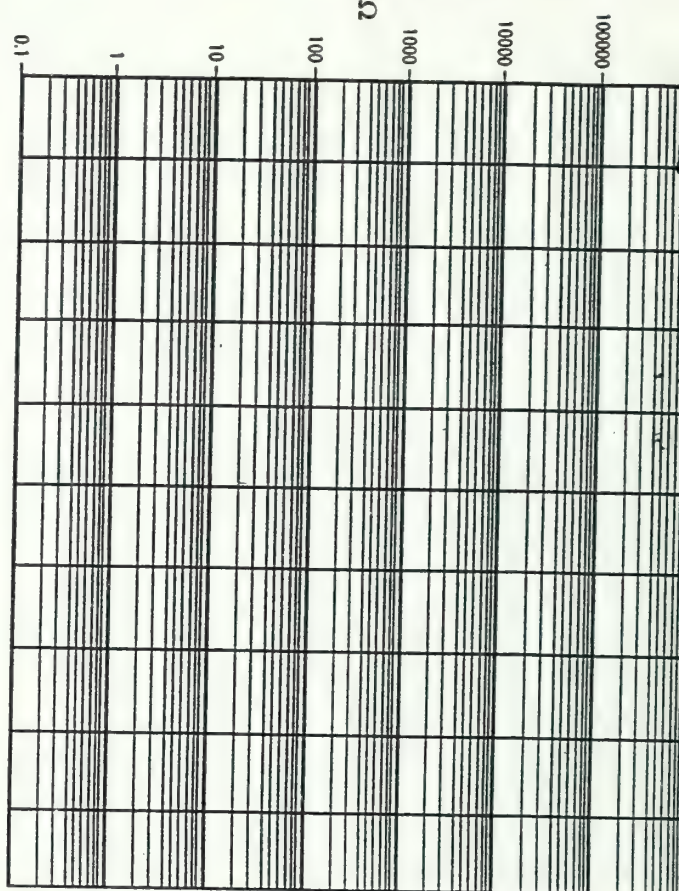
Insulation Test Record

Equipment ATS. No 16A Rating.....

Location Front Porch Date installed.....

PNL-PI

MO.

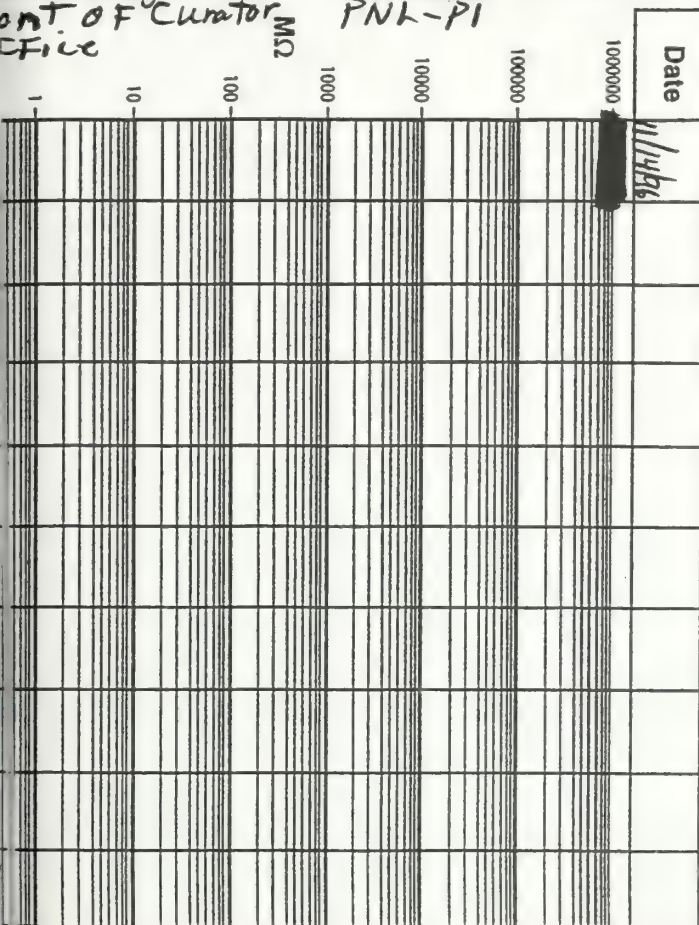
[illegible]



AVO INTERNATIONAL

Insulation Test Record

Equipment LTS No. 16 B Rating 20A
 Location Storage Rm. Date installed PNL-PI
 Office Curator



Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
------	-----------------------	----------------------------	------	----------	-------------------	--------------------------

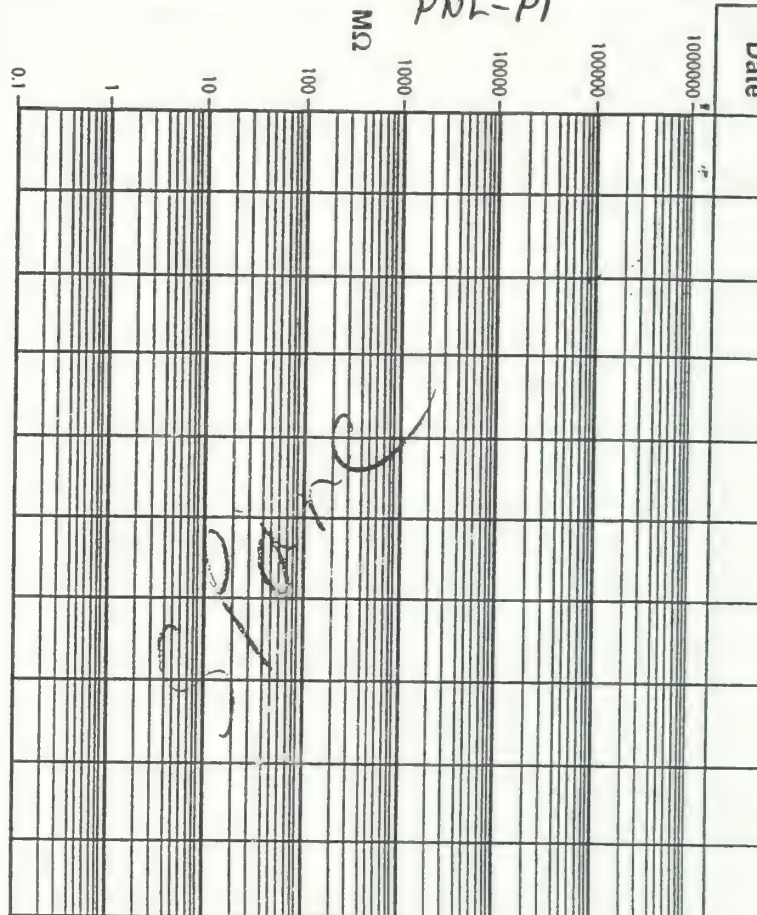
11/14/86 250V INF



AVO INTERNATIONAL

Insulation Test Record

Equipment Spare No. 18 A Rating 15A
 Location Spare Date installed PNL-PI

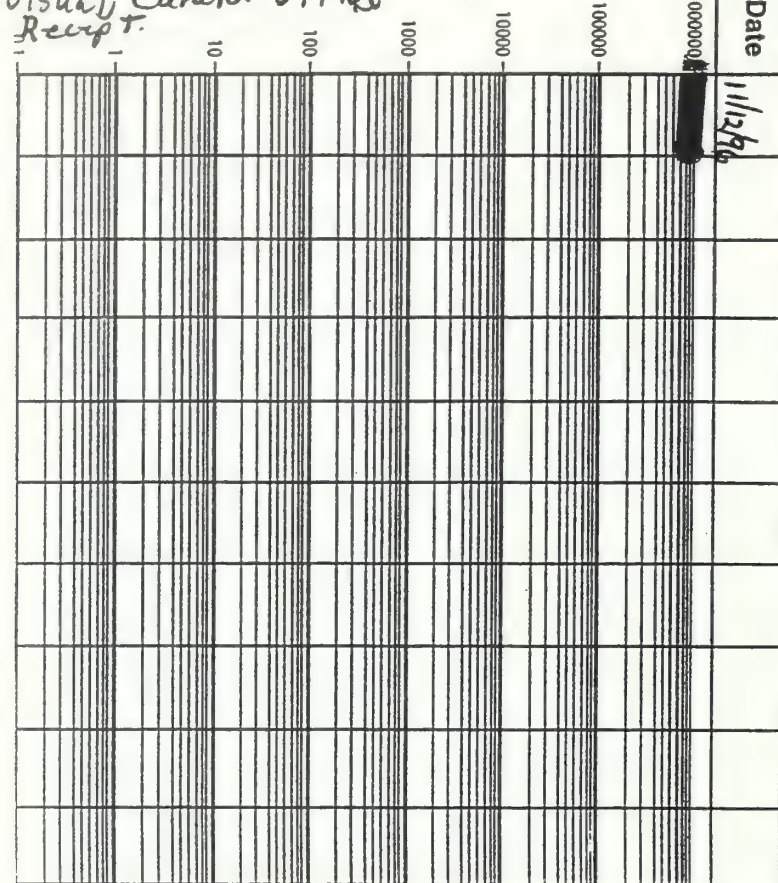


Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
------	-----------------------	----------------------------	------	----------	-------------------	--------------------------

Insulation Test Record

Equipment Receipt..... No. 18 B..... Rating 15 A.....

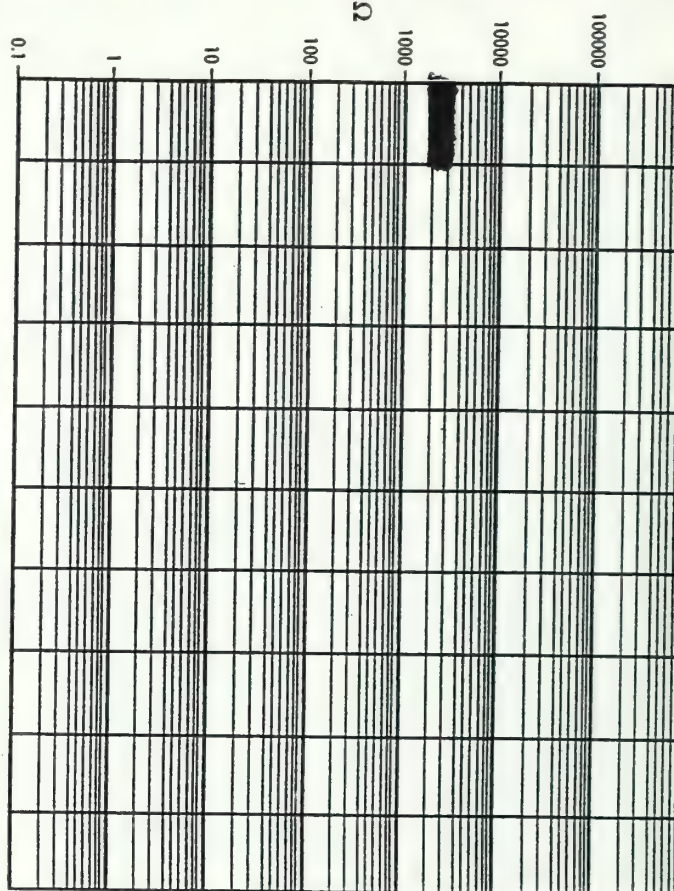
Location Basement Sump Date installed PNL-PI
 Pump 1ST FL. Audio
 Visual Curator Office
 Receipt 1000000

[illegible]

Insulation Test Record

Equipment LTS + Receipts No. 20A Rating!

Location Basement API Date installed PNL-P1

[illegible]

Insulation Test Record

Insulation Test Record
 Moment ATS + Receipts No. 20 B Rating 15 A

Location Basement APT Date installed

MS2

Date _____

11/13/94

[illegible]

Insulation Test Record

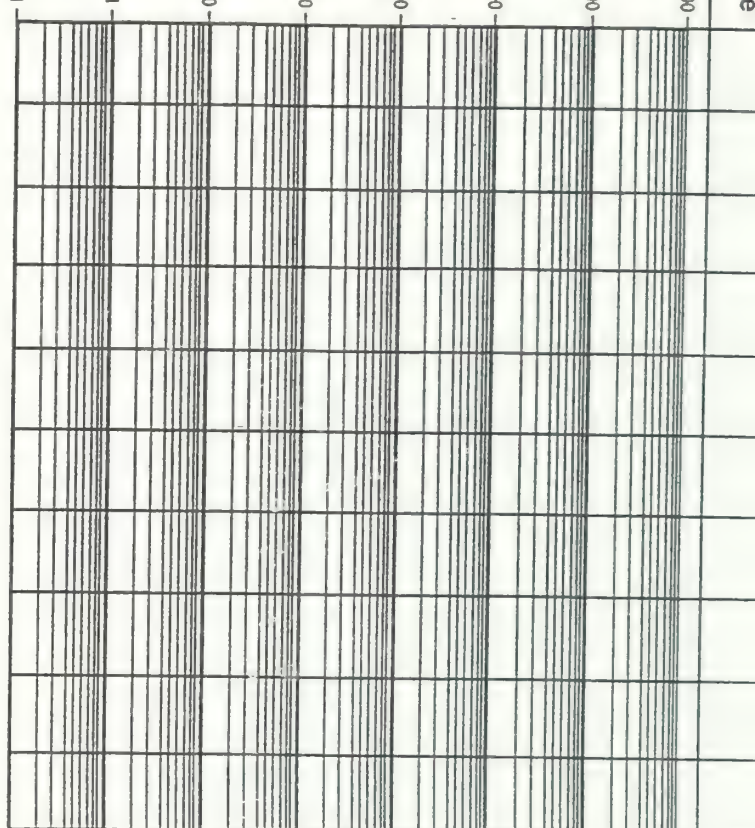
Equipment..... N^o..... Rating.....

Location Date installed

MS2

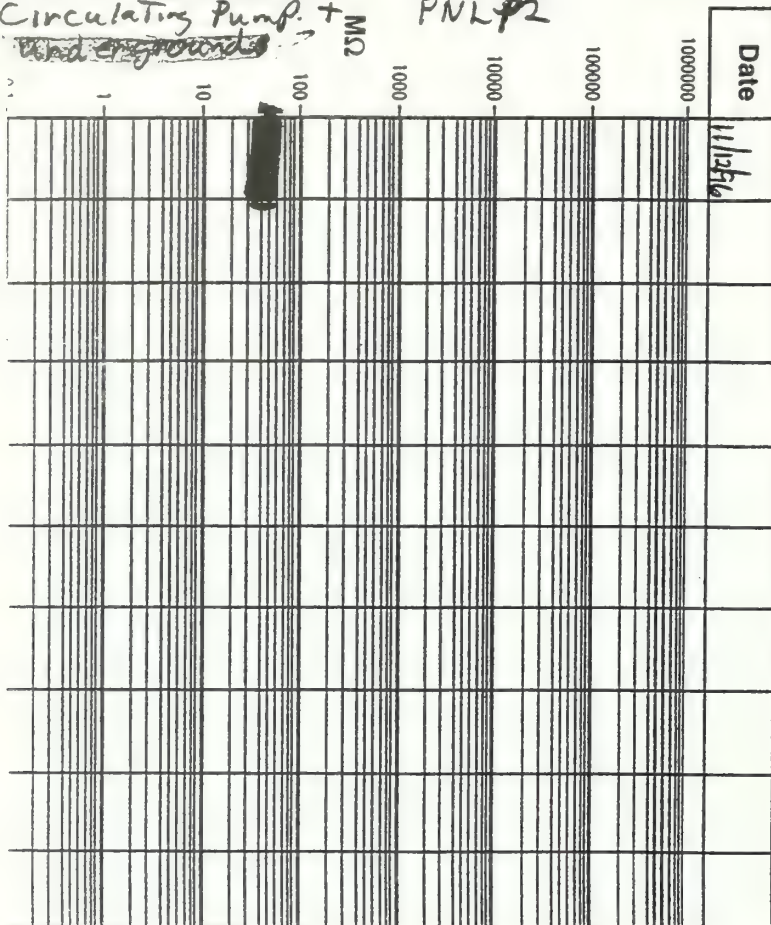
Date _____

0.1

[illegible]

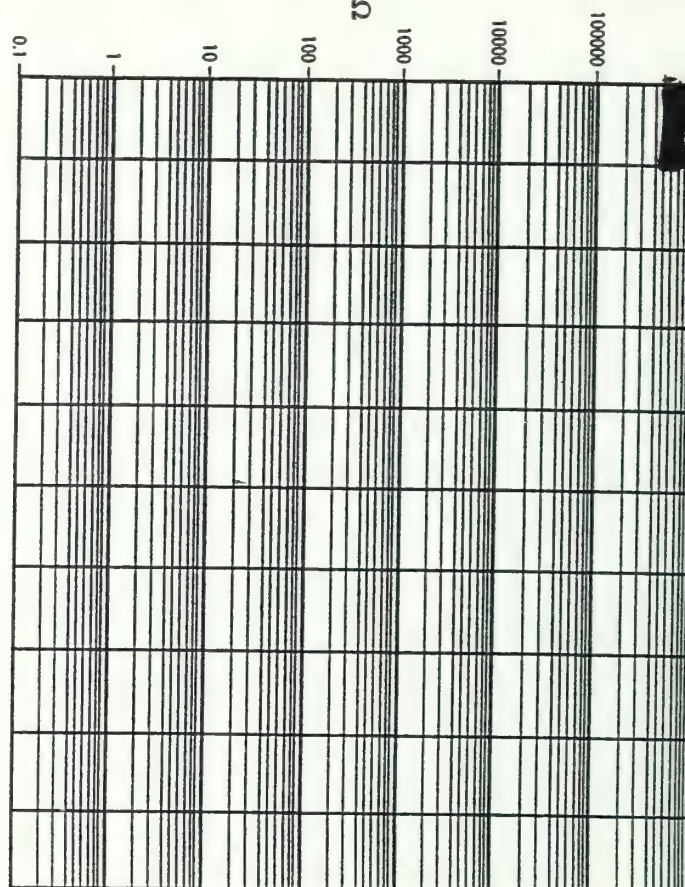
Insulation Test Record

Equipment 1/2 HP Motor No. 1-13 Rating 20A
Location Boiler RM Date installed _____
Circulating Pump + _____
~~and grounds~~ _____

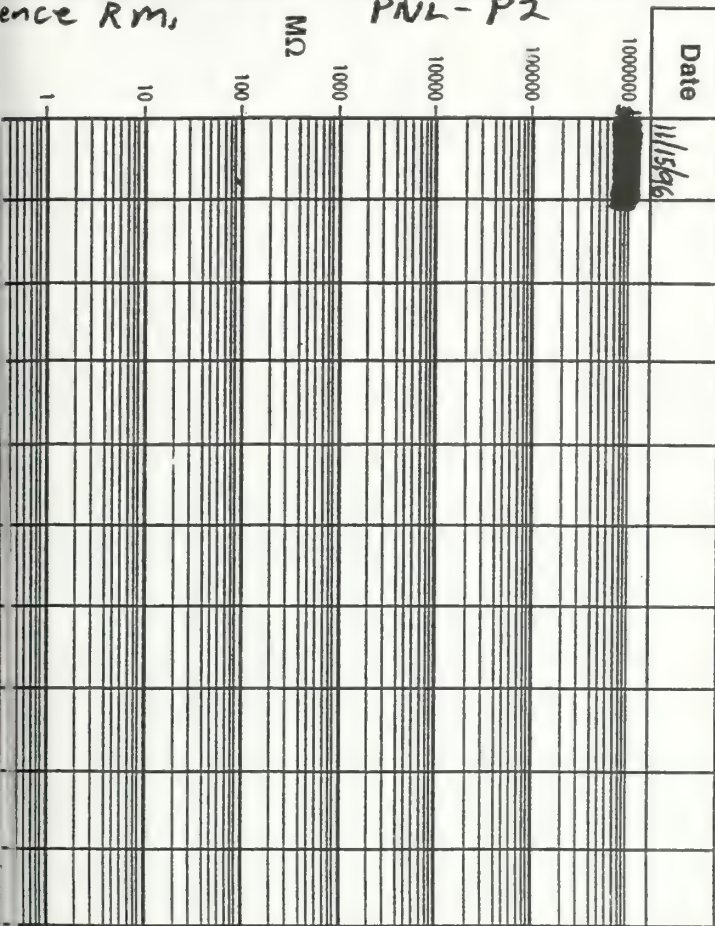
[illegible]

Insulation Test Record

Equipment Receipt No. 5A Rating 2
Location 2nd FL Hall Date installed PNL-P2

[illegible]

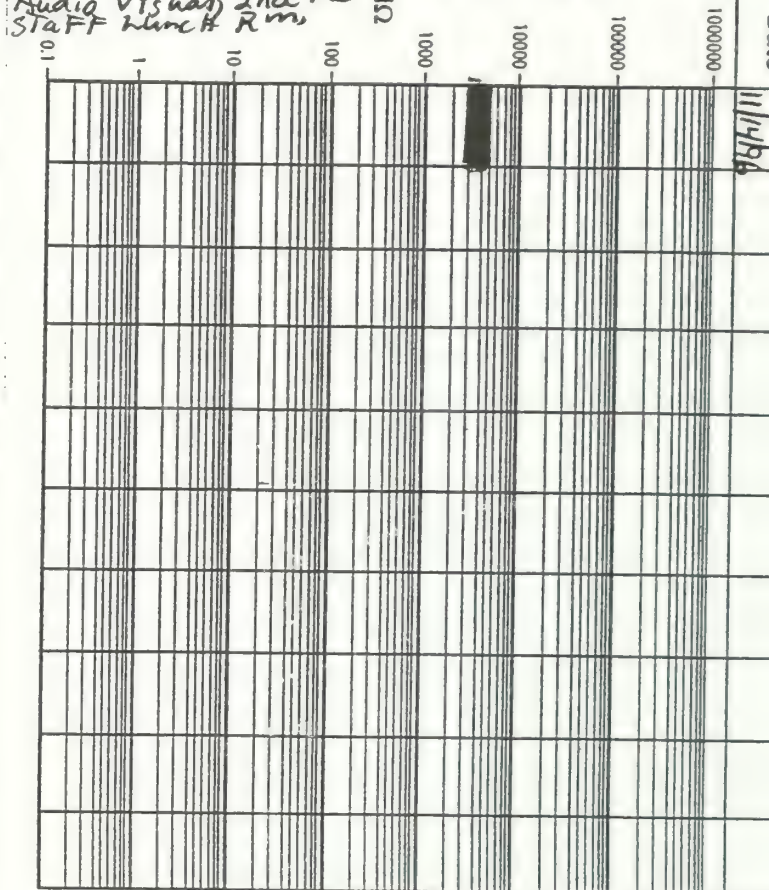
AVO INTERNATIONAL
 Insulation Test Record
 Equipment Receipt No. 5B Rating 20A
 Location 2nd FL. CONF-ence Rm. Date installed PNL-P2



Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
------	-----------------------	----------------------------	------	----------	-------------------	--------------------------

11/96	250V	INF.				
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AVO INTERNATIONAL
 Insulation Test Record
 Equipment ATS + Receipt No. 7A Rating 20A
 Location Storage Rm Main Hallway, Computer Rm, Audio Visual 2nd FL, Staff Lunch Rm Date installed PNL-P2



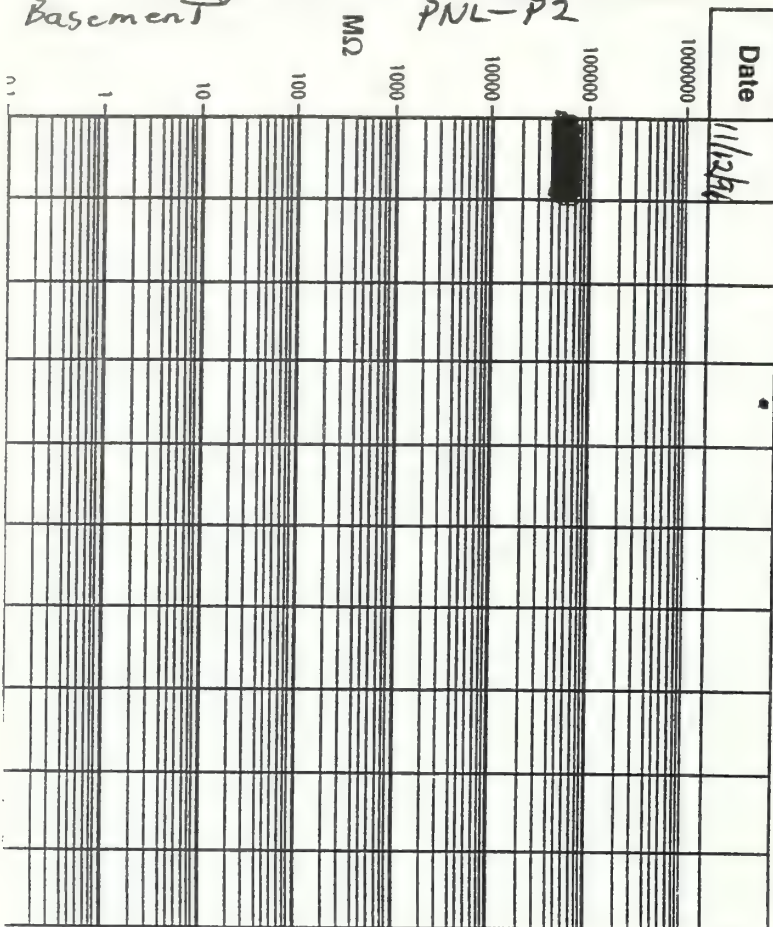
Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
------	-----------------------	----------------------------	------	----------	-------------------	--------------------------

11/14/96	250V	2K+				
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Insulation Test Record

Equipment Receipt No. 7B Rating 20A

Location Storage Rm Date installed
Basement 2 PNL-P2

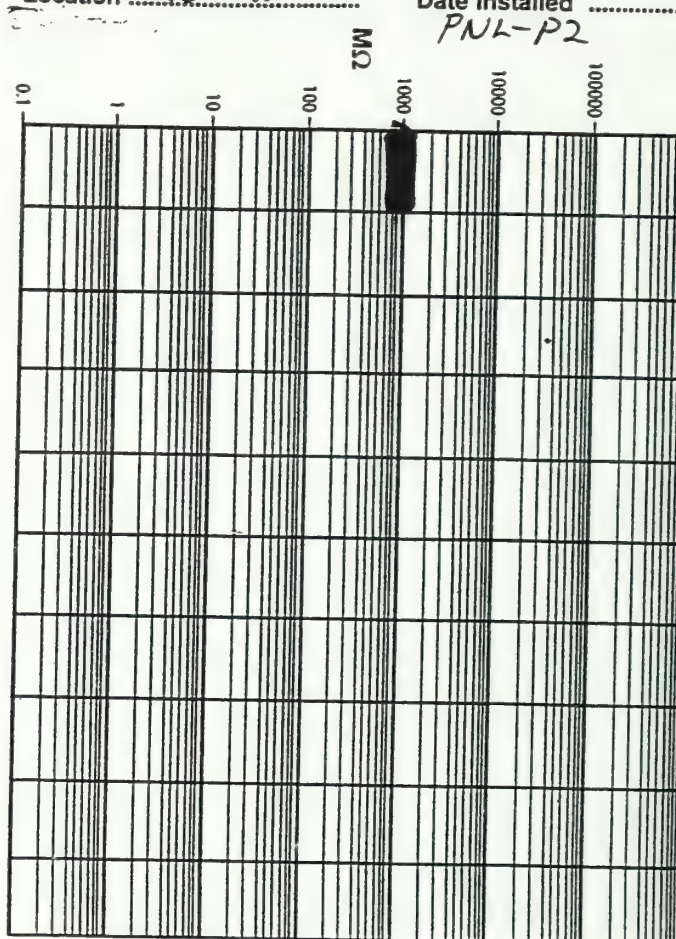
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AVO INTERNATIONAL

Insulation Test Record

Equipment: KTS-5 No. 9 Rating: 2

Location Basement Date installed PNL-P2

[illegible]



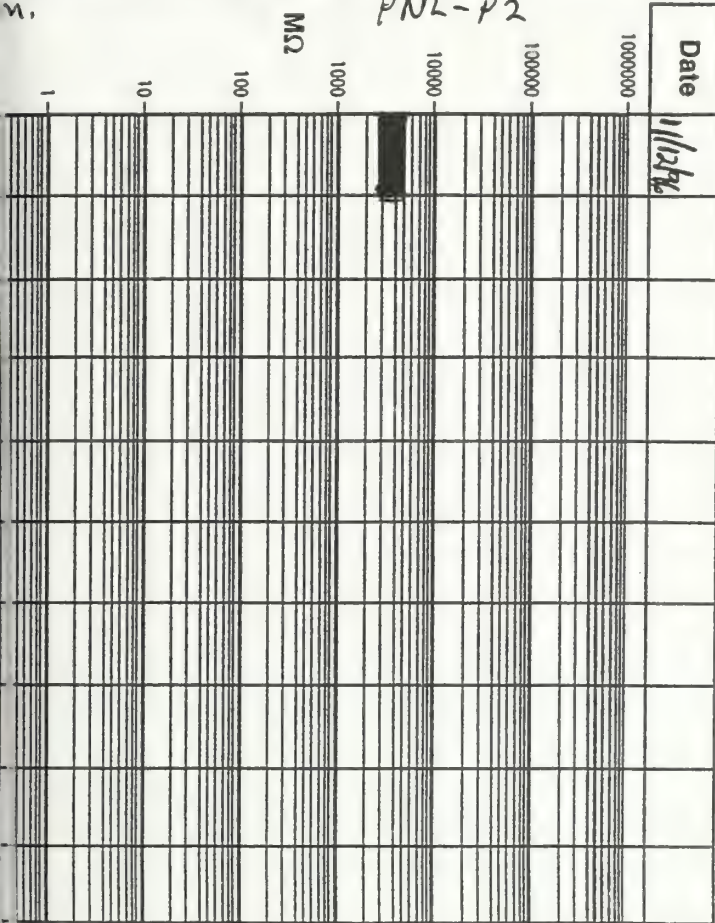
AVO INTERNATIONAL

Insulation Test Record

Equipment Receipt No. 11 Rating 20 A.

Location Basement laundry Date installed PNL-P2

PNL-P2



Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
------	-----------------------	----------------------------	------	----------	-------------------	--------------------------

12/96	250V	1 K+				
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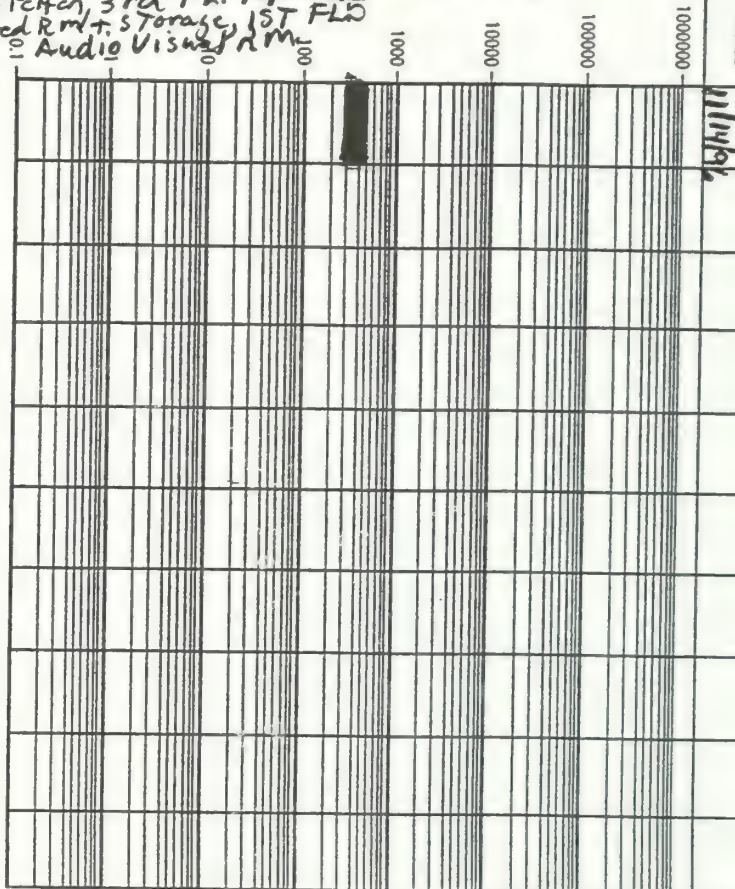
AVO INTERNATIONAL

Insulation Test Record

Equipment ATS + Receipt No. 13 Rating 20 A.

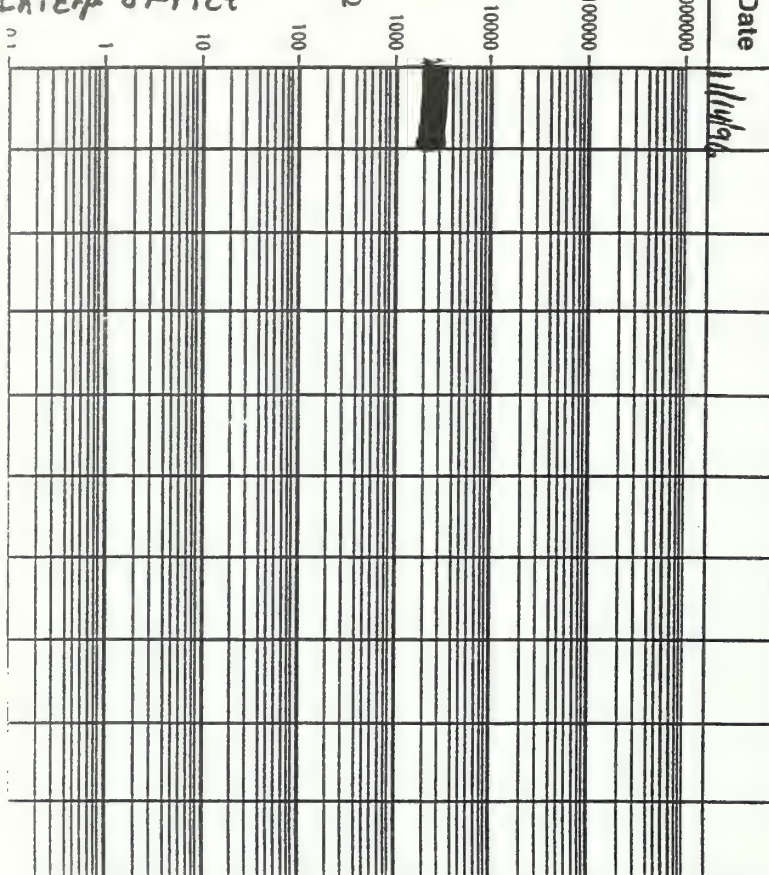
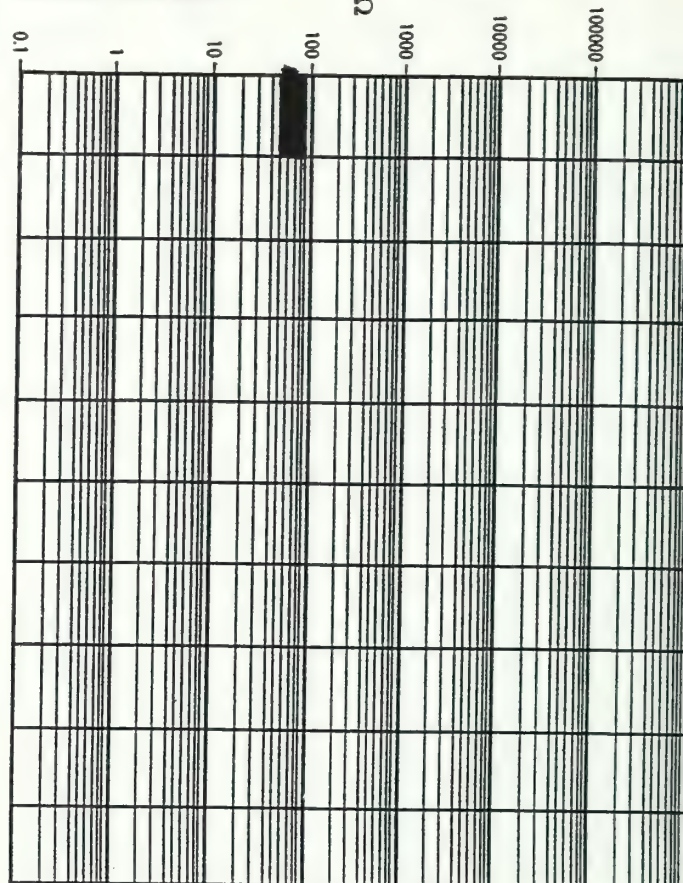
Location 2nd Fl. Clara Barton Date installed PNL-P2

Sitting Rm, Hallway + STAFF
Kitchen, 3rd Fl. Topmost
Bed Rm + Storage, 1st Fl.
Audio Visual Rm

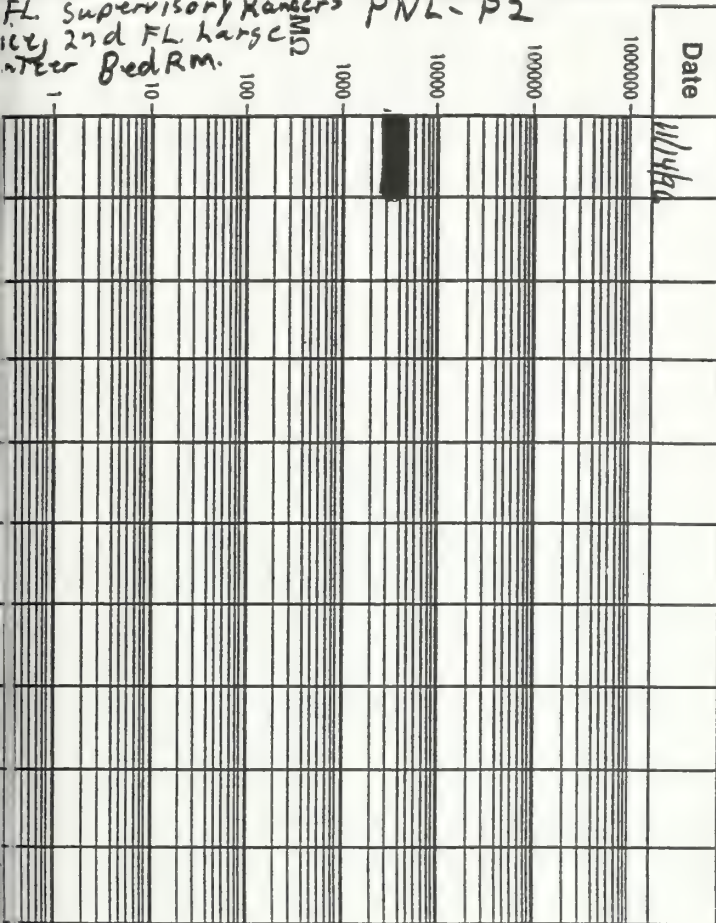


Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
------	-----------------------	----------------------------	------	----------	-------------------	--------------------------

11/14/96	250V	300				
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[illegible][illegible]

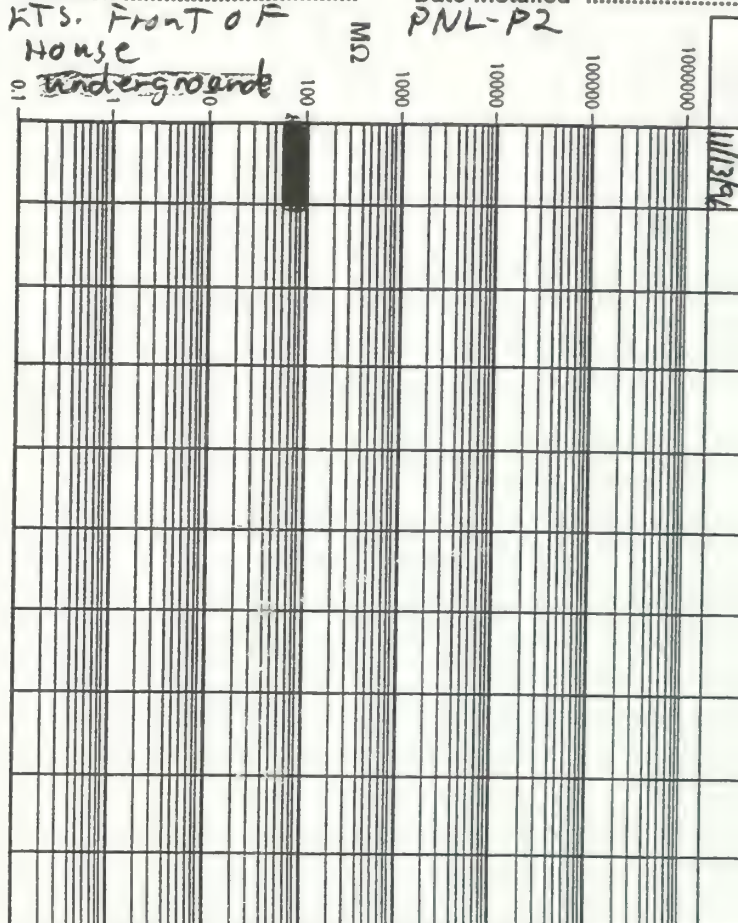
AVO INTERNATIONAL
Insulation Test Record
 Equipment LTS + Recept No. 17 Rating 20A
 Location Storage main Hallway
 Date installed PNL-P2
 FL Supervisory Rangers
 2nd FL large CL
 Inter Bed Rm.



Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
------	-----------------------	----------------------------	------	----------	-------------------	--------------------------

11/14/96	250V	25+				
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AVO INTERNATIONAL
Insulation Test Record
 Equipment LTS No. 19 Rating 20A
 Location H.P. Sodium
 LTS. Front of House
 Date installed PNL-P2
 Under ground



Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
------	-----------------------	----------------------------	------	----------	-------------------	--------------------------

11/13/96	250V	90				
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AVO INTERNATIONAL

Insulation Test Record

Equipment LTS No. 2A Rating 20A
 Location Basement Date installed PNL-P2

MΩ

Date

11/12/96

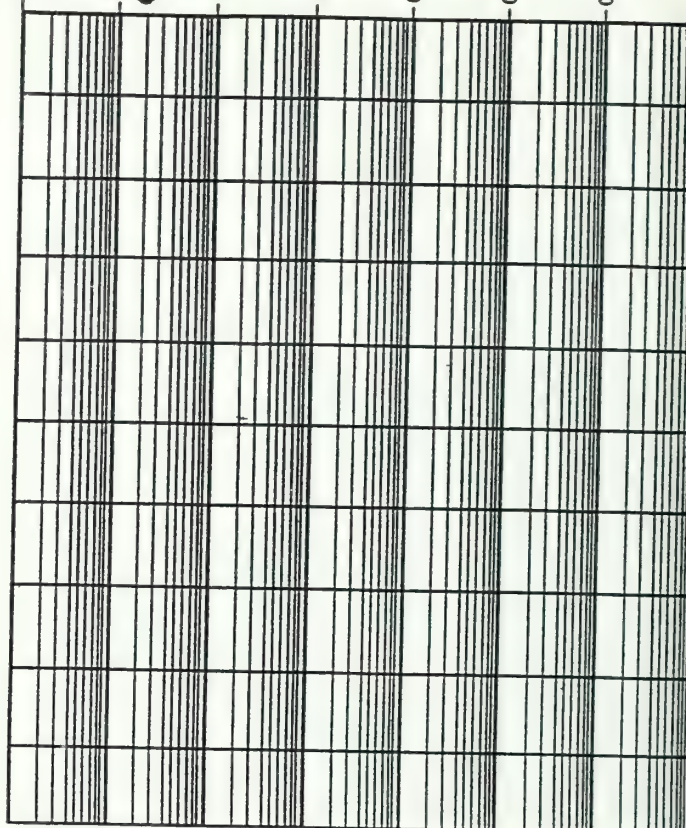


AVO INTERNATIONAL

Insulation Test Record

Equipment LTS + Rec No. 2B Rating 20A

Location LTS Clara Barton Kitchen Date installed PNL-P2
Storage Main Hallway Supv.
Rangers Office, Recept.
Clara Barton Kitchen, Sitting Rm, Supv. Rm,
Office and FLR Hallways



Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
------	--------------------------	----------------------------------	------	----------	----------------------	--------------------------------

11/12/96 250V INF

Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
------	--------------------------	----------------------------------	------	----------	----------------------	--------------------------------

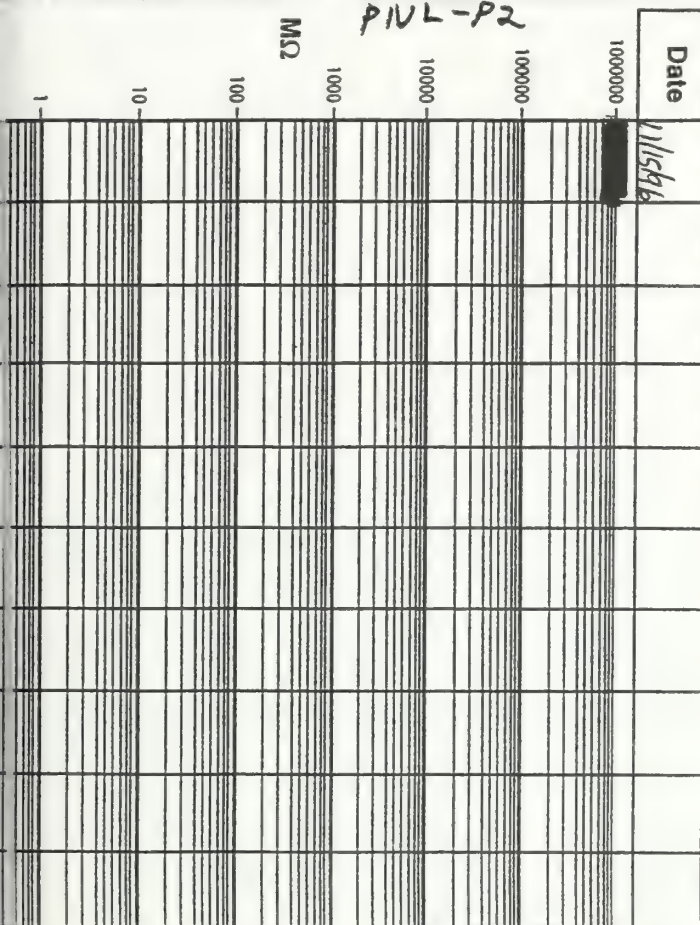
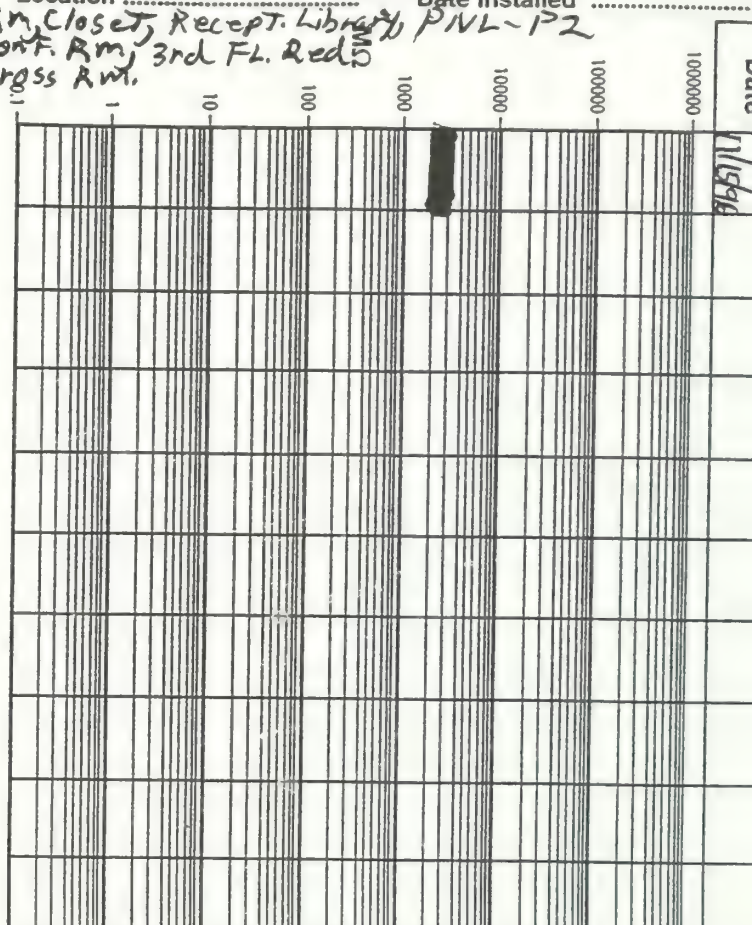
11/14/96 250V INF

Insulation Test Record

Equipment LTS + REC No. 4 B Rating 20 A

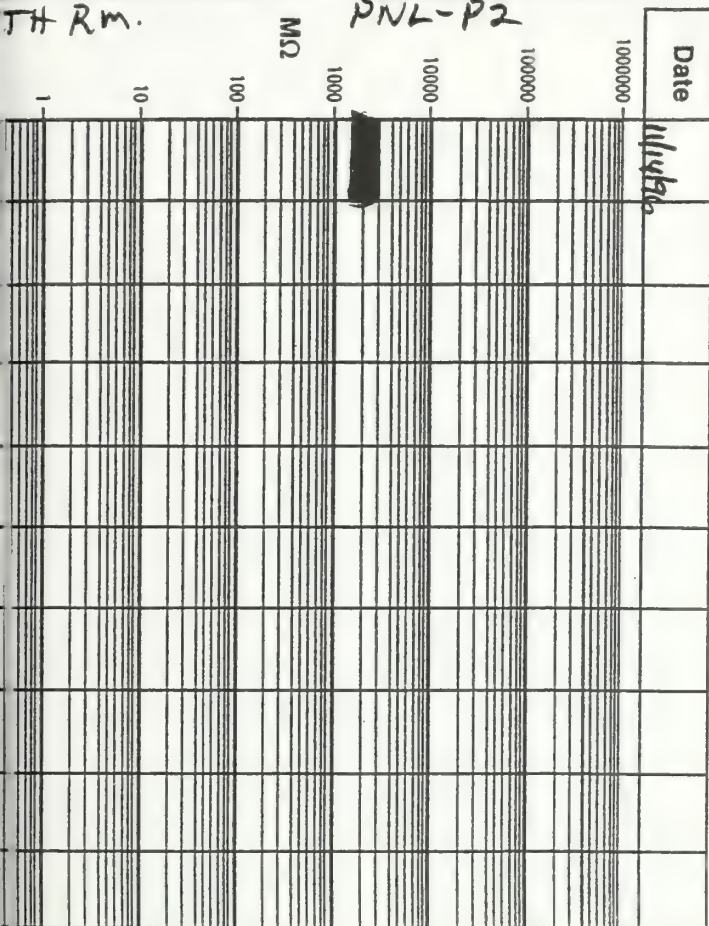
Location ADS 2nd Fl. Dressing Date installed
Am Closet, Receipt. Library PVL-172
Cont. Am. 3rd Fl. Red
Cross Am.

PIVL-P2

[illegible][illegible]

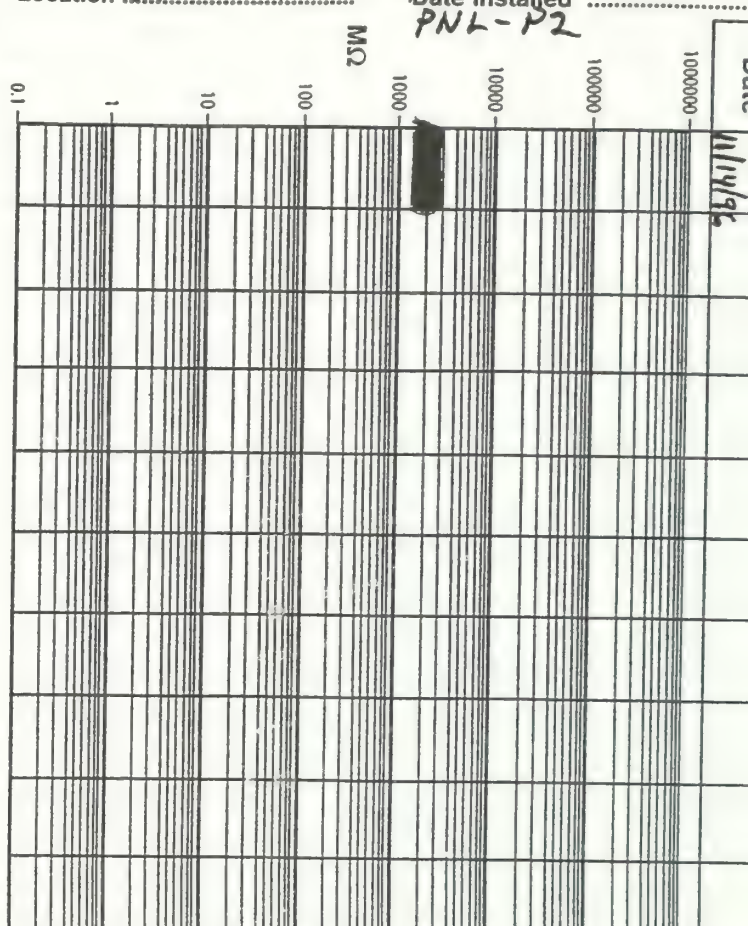
Insulation Test Record

Document Receipt..... N^o 10A..... Rating 15A.....
 Location Clara Barton..... Date installed
 TH Rm. PNL-P2.....

[illegible]

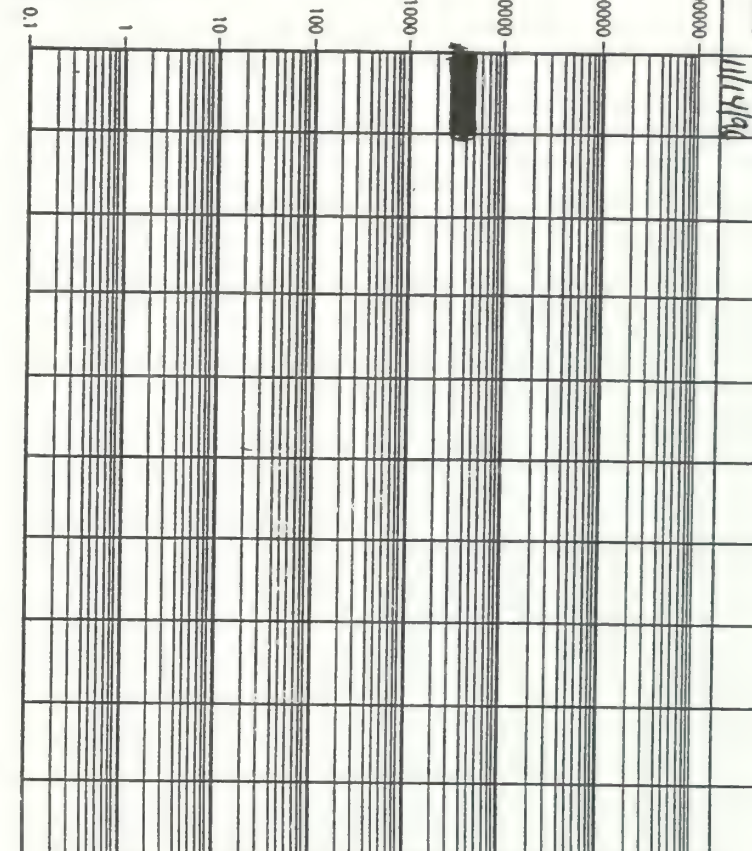
Insulation Test Record

Equipment LTS + REC No. 10B Rating 20A
Location STAFF KITCHEN Date installed PNL-P2

[illegible]

11/5/56

[illegible][illegible]

[illegible][illegible]

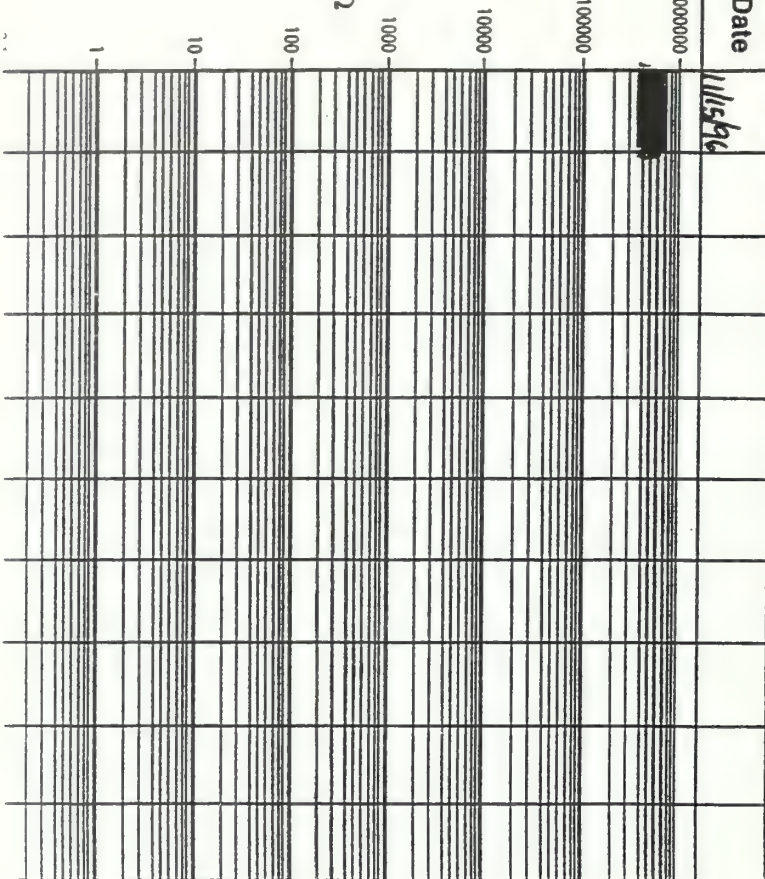
Insulation Test Record

Equipment Receipt No. 16A Rating 15A

Location 1ST FL Storage Date installed
main Hallway 3 PUL-P2

MS2

Date _____

[illegible]

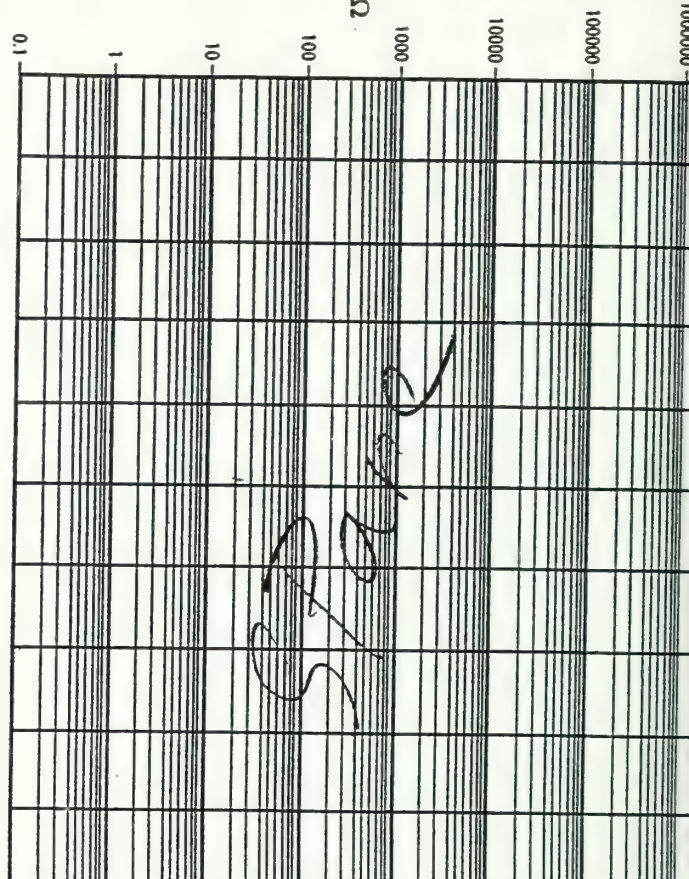
Insulation Test Record

Equipment Spare No. 163 Rating 2

Location Spane Date installed PNL-P2

MIS

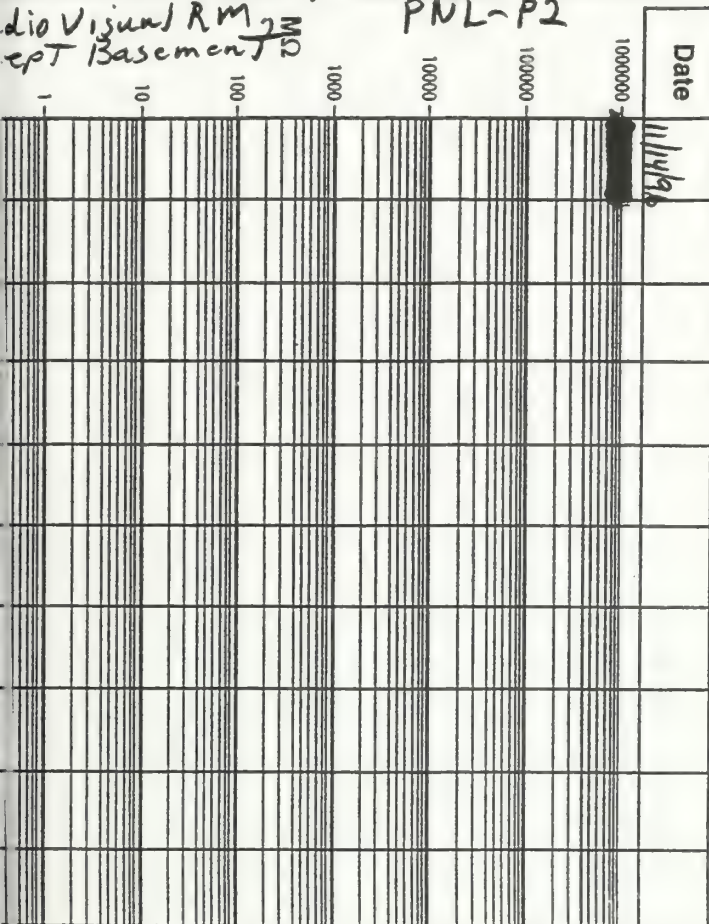
0.1

[illegible]

Insulation Test Record

Insulation Test Record
 pment LTS + Receipt, No. 18 Rating 15A

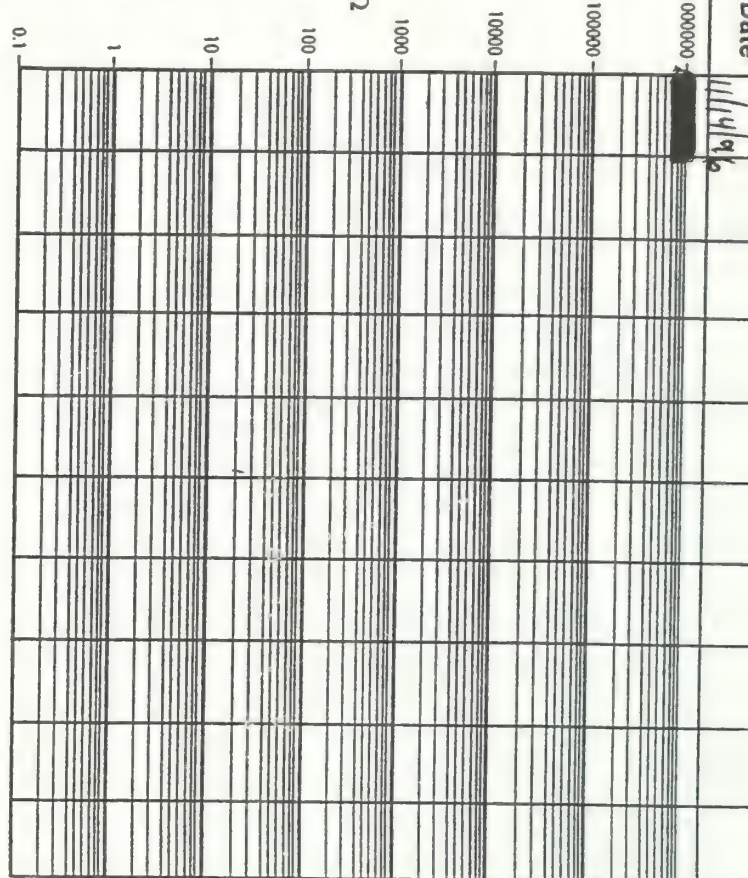
tion ETS 1ST FL Computer Date installed _____
 dio Visual Rm 23 PNL-P2
 ePT Basement 10

[illegible]

Insulation Test Record

Insulation Test Record
Equipment *Receipt* No. *20A* Rating *15A*

Equipment 2nd FL. Date installed PNL-P2
Location Hubbell Bedrm. Rating 10

[illegible]

Insulation Test Record

Equipment.....5 parc.....

No. 20 B Rating 15 A

Location *Sparc*

Date installed
PNL-P2

MSQ

Date _____

Spare

[illegible]

Insulation Test Record

Equipment.....

No. Rating....

Location

Date installed

MS2

0.1

A full-page view of a blank sheet of graph paper. The grid consists of thin black horizontal and vertical lines forming small squares. There are approximately 20 columns and 20 rows visible. A faint, larger square border is also present around the perimeter of the page.[illegible]

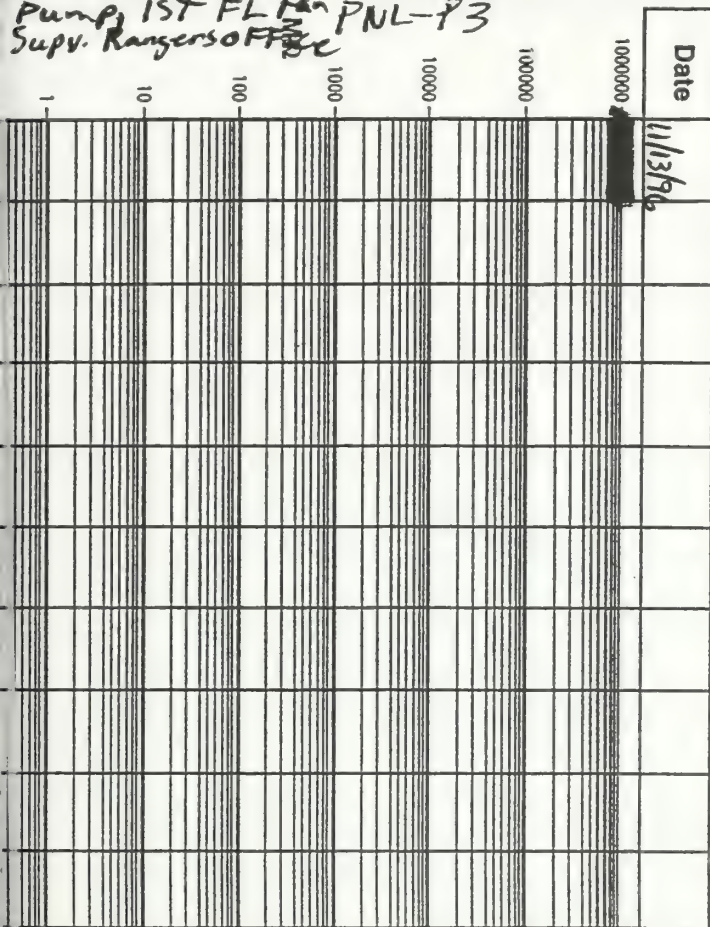


AVO INTERNATIONAL

Insulation Test Record

Equipment Pump + Fan coils No. 1 Rating 20A

Location Basement CHiller Date installed 11/13/96
Pump, 1ST FL Fan
Supv. Rangers Office PNL-P3



Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
11/13/96	250V	INF				

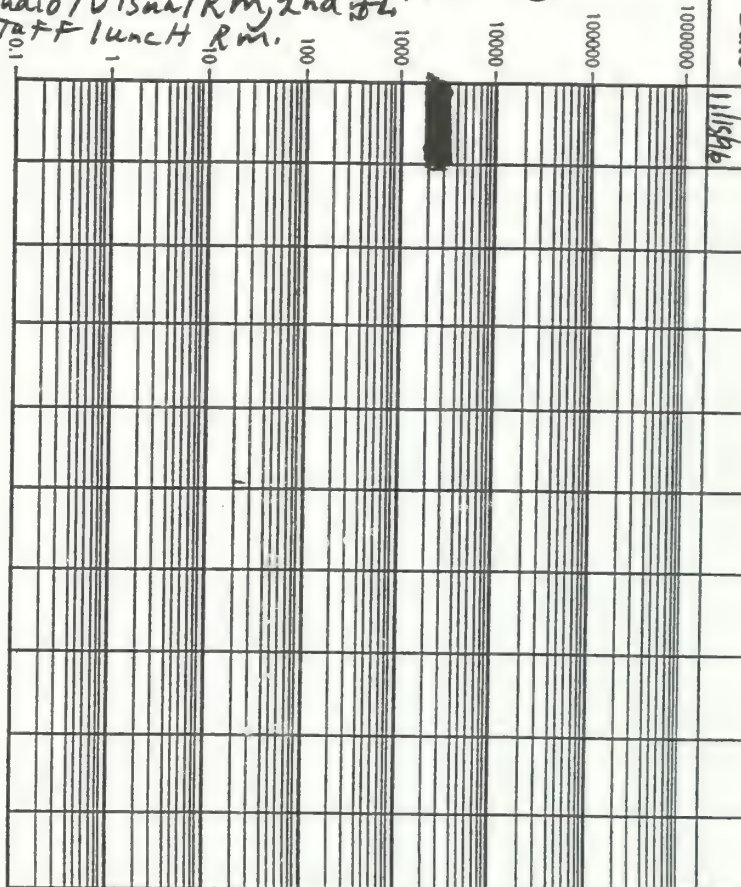


AVO INTERNATIONAL

Insulation Test Record

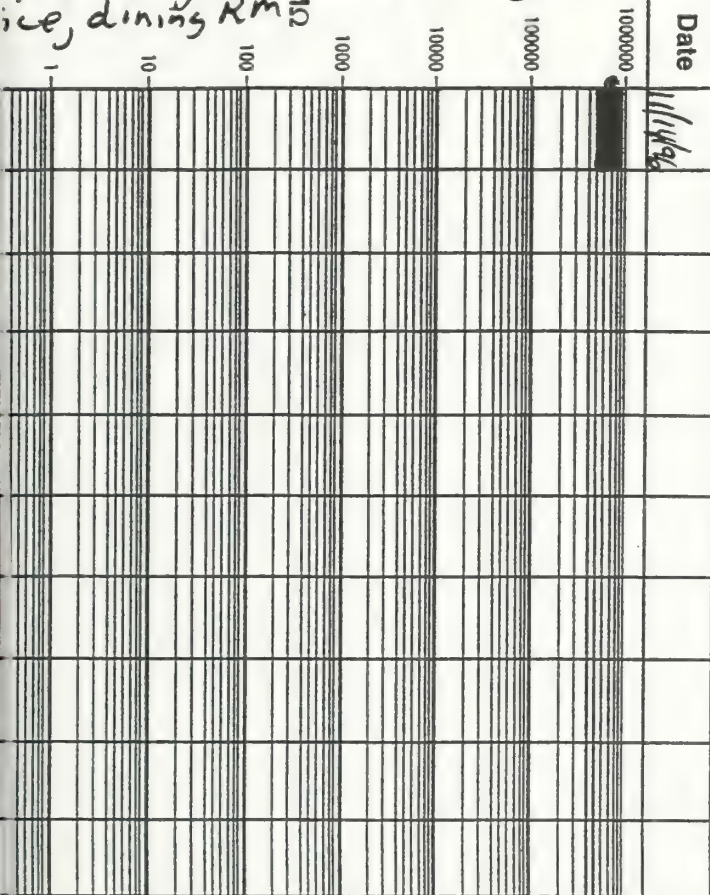
Equipment Fan Coil units No. 3 Rating 20A

Location laundry Rm, 1ST Date installed 11/15/96
FL Clara Barton Office
Audio/Visual Rm, 2nd FL
STAFF lunch Rm. PNL-P3

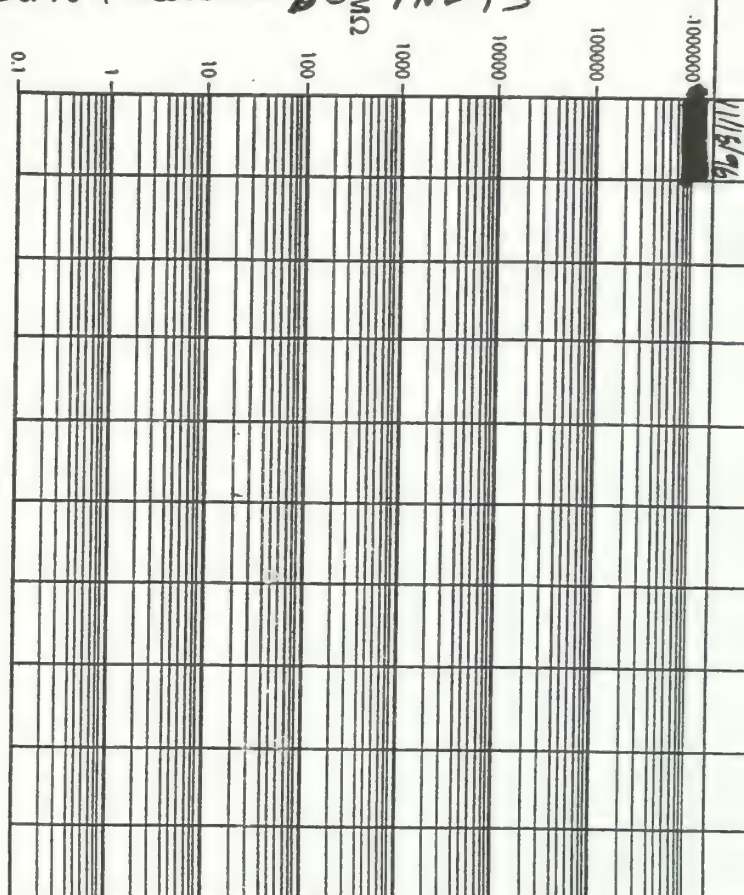


Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
11/15/96	250V	2K+				

ation 1ST FL. Red Cross Date installed
FF o FFice, Clara Barto PNL-P3
ice, dining Rm 5

[illegible]

Location 2nd FL. Clara Barton Bed Chamber Date installed PNL-PS

[illegible]

Insulation Test Record

equipment LTS + Recept. No. 15 Rating 15A
location LTS main Hallway Date installed _____
recept. main Hallway + PNL-P3
estimate _____

[illegible][illegible]

Insulation Test Record

Equipment Water Heater N-17719 Rating 30
Location Basement Date installed PNL- P3

A blank logarithmic graph paper. The vertical axis (y-axis) is labeled with powers of 10: 0.1, 1, 10, 100, 1000, 10000, and 100000. The horizontal axis (x-axis) is labeled with 1 and 2. The grid consists of major lines every 10 units on the vertical axis and minor lines every 1 unit on the horizontal axis.

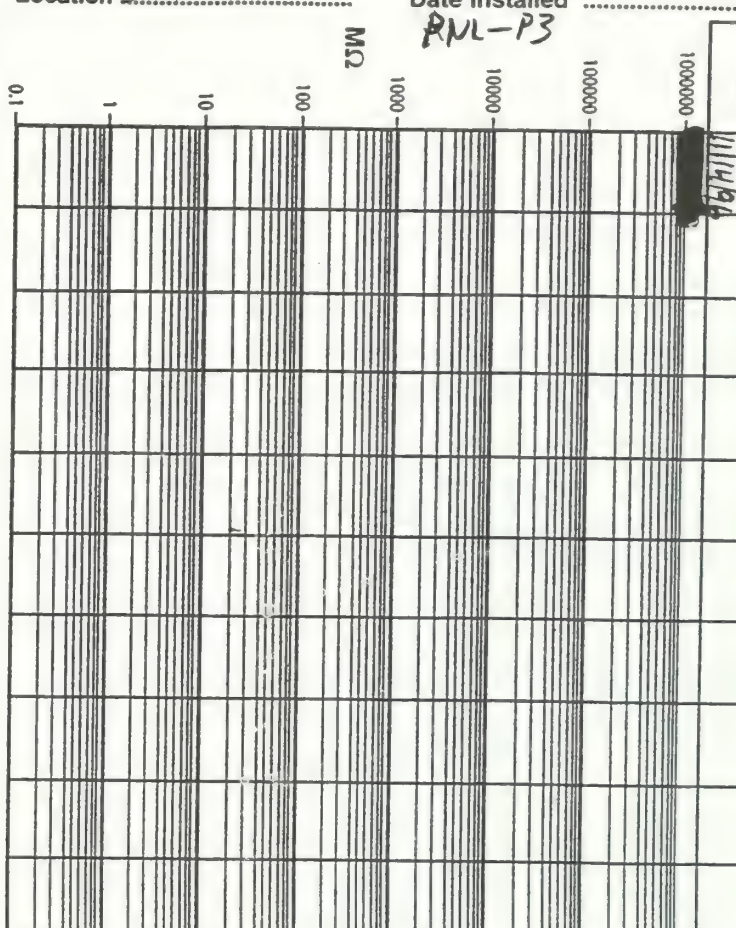
[illegible]

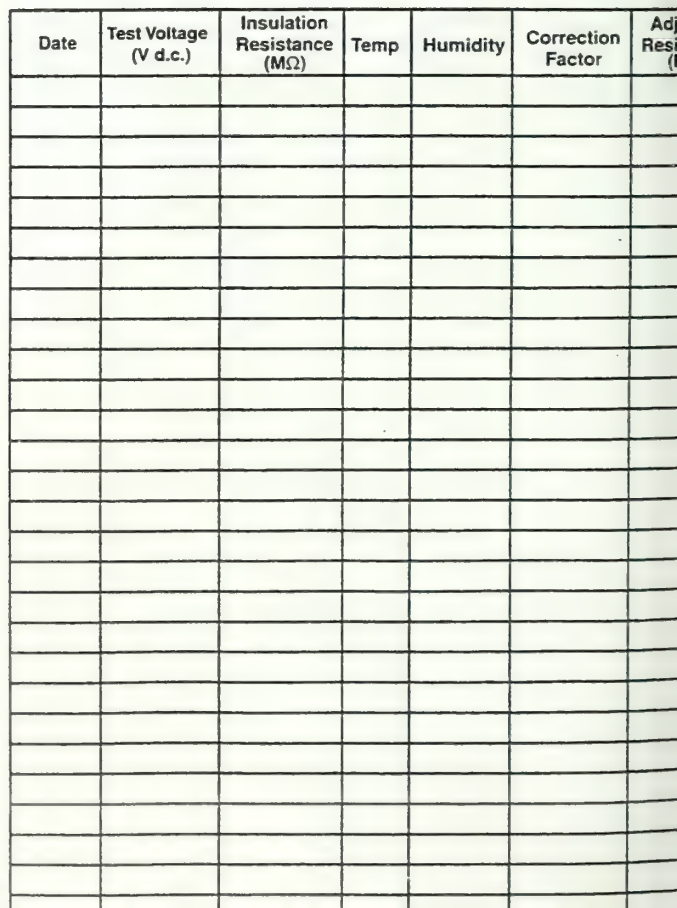
Insulation Test Record

Equipment Receipt No. 6 Rating 20 A

Location Basement Date installed

Date installed
AML-P3

[illegible]



[illegible]

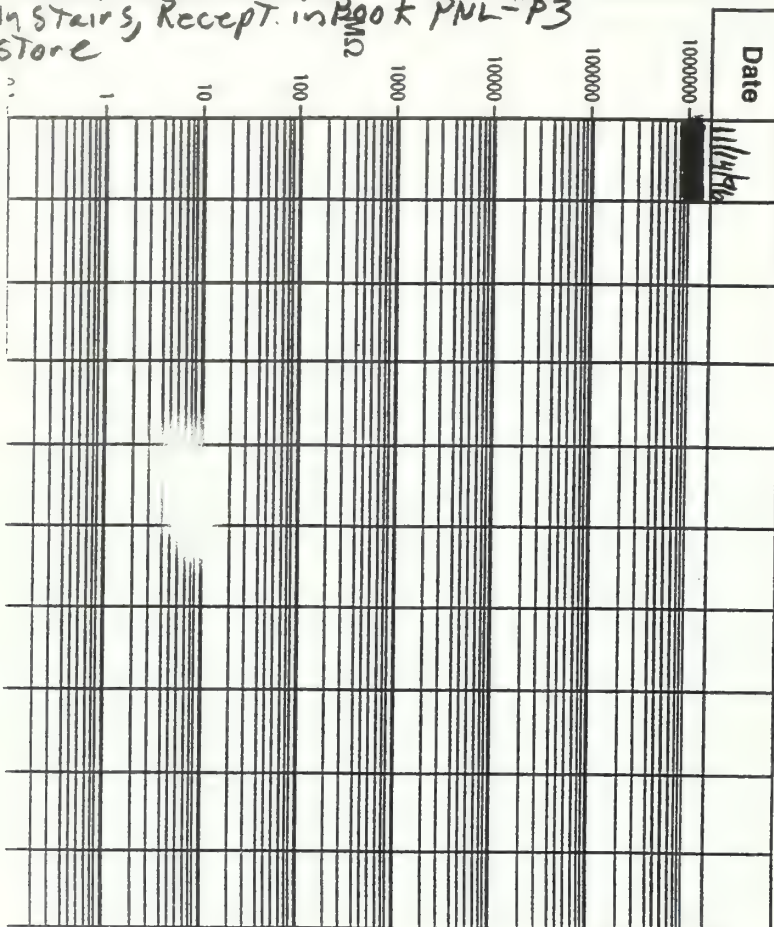
A blank logarithmic scale with major markings at 0.1, 1, 10, 100, 1000, 10000, and 1000000. A handwritten number '111496' is visible on the right side.

[illegible]

Insulation Test Record

Equipment HTS + Recept. No. 16 Rating 20 A.

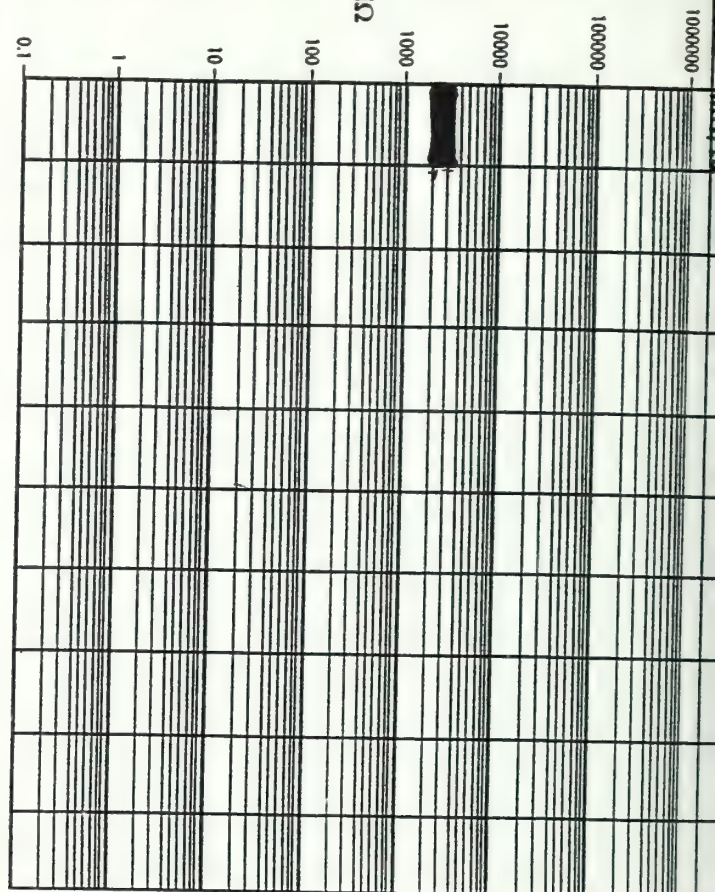
Location LTS main Hallway Date installed
In stairs, Recept. in Book PNL-P3
Store MS 100

[illegible]**AVO INTERNATIONAL**

Insulation Test Record

Equipment LTS + Receipts No. 18 Rating 20A

Location 1ST FL. Book Date installed PUL-P3
Store + VanIT. N

[illegible]

Insulation Test Record

Equipment Battery Pack No. 20 Rating 20A

tion Basement Date installed

M52

Date _____

11/13/96

Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
3/96	250V	INF.				

Insulation Test Record

Equipment Recept. No. 18B Rating 15A

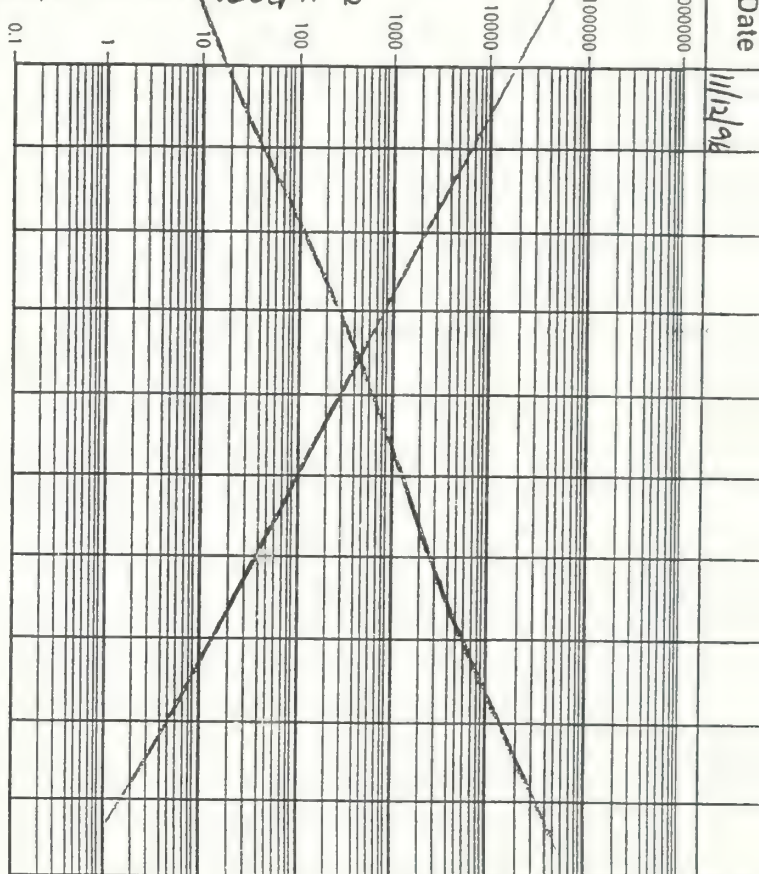
Location Basement Sump Date installed 1/1/00

Pump, 1ST FL Audio Visual
Curator Office Receipt

52

Date _____

11/12/9



Date	Test Voltage (V d.c.)	Insulation Resistance (MΩ)	Temp	Humidity	Correction Factor	Adjusted Resistance (MΩ)
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1- Range 2nd FL.	2- Laundry Rm
3- Staff Kitchen	4- Clothes Dryer
5- Range 2nd FL.	6A- Recept. Laundry Rm.
7- Hartman Kitchen	6B- Spare
9- 3rd FL GFI Recept + Recepts on East Side Roof	8A- LTS 1ST FL Rear Steps, 2nd FL Staff Kitchen, old Bath Rm, Recept. large Volunteer Guest Bed Rm.
11A- Spare	8B- Spare
11B- Recepts in Bedroom Basement Apartment	10A- Recepts Kitchen Basement Apartment
13A- Recepts Basement Store Rm, LTS, Basement Store Rm, Laundry Rm, and FL Hall, Guest Bed Rm, Clara Baron Sitting Rm, Bed ^{CHamber}	10B- Recepts Kitchen, living Rm Basement Apartment
13B- Recepts. Basement Security + Telephone	12A- Recepts Staff Lunch Rm,
15- Bath Rm. Heater in	12B- 3rd FL GFI Recept + Recepts. on West side Roof
17- Basement Apartment	14A- LTS Basement Water Heater Rm, and 2nd FL. Front Stairs,
19A- LTS + Recepts. Front and Back Parlor, Curator Office + Back Office	14B- Security LT. on Power Pole outside east side
19B- LTS in THE Basement, Recept. Small Volunteer Guest Rm 2nd FL	16A- LTS. Front Porch
	16B- LT. Hall closet outside of Curator Office
	18A- Spare
	18B- Recepts. Basement Sump Pump,
	1st FL. Audio/Visual + Curator Office
	20A- LTS + Recepts + Range Hood Basement Apartment,
	20B- LTS. + Recepts Basement Apartment

1- 1 1/2 HP motor on Circulating	2A- LTS. Basement
3- Pump in Boiler Bldg.	2B- LTS + Recepts 1ST FL. Clara Barton supr. Kitchen, Rangers OFFice, Clara Barton Sitt. Rm., Storage main Hallway, 2nd FL Hallway
5A- Recept. 2nd FL. Hall	4A- Recept. Curator OFFice
5B- Recept. 2nd FL. Conference Rm.	4B- Recepts, LTS., Battery Act 2nd FL. Library, Conf. Rm., Dressing Rm., 3rd FL.
7A- LT. in Hall closet outside A/V Rm. Recept	Red Cross Rm.
2nd FL. Computer Rm., A/V Rm., STAFF lunch Rm.	6- Recepts, Basement Apt. GFI + Bed Rm.
7B- Recept Storage Rm Basement	8- Boiler Bldg. Boiler motor + 1/4 HP Flue motor
9- LTS Basement	10A- Recept Clara Barton Bath Rm.
11- Recept. Basement Laundry Rm.	10B- LTS. + Recepts 2nd FL STAFF Kitchen.
13- Recept A/V Rm., 2nd FL STAFF kitchen + Hallway, 3rd FL. Bed Rm., LTS. Clara Barton Sitt. Rm.	12A- LTS. 1ST FL. A/V Rm + Hall closet, LTS. + Recepts 3rd FL. Red Cross Rm.
15A- Recepts. 2nd FL STAFF kitchen, STAFF lun- ch Rm., Interpreter OFFice	12B- LTS + Bath Rm Fan Basement Bath Rm. + closet
15B- LTS Boiler Bldg.	14A- spare
17- Recepts 1ST FL. Supr. Rangers OFFice and FL large Volunteer Bed Rm., LTS Storage Closet Supr. Rangers OFFice + Hallway Closet.	14B- LTS. 1ST FL Bath Rm and Recept. 1ST FL. Bookstore.
19- High Pressure sodium LTS outside Front of House	16A- Quad Recept Hallway Storage outside A/V Rm.
	16B- spare
	18- LTS. 1ST FL. Computer + A/V + Recept. Basement
	20A- Recept. 2nd FL. Hubbell Bed Rm.
	20B- spare

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|--|------------------------------------|
| 1-A/C circulating Pump Basement, | 2- Range Basement |
| 1ST FL Fan Coil Supr. Rangers OFFICE | |
| 3-Fan Coils Basement, 1ST FL. Clara Barton | 4- Apartment |
| 1st OFFICE, A/V RM, 2nd FL STAFF Lunch RM | |
| 5-Fan Coil units, Basement, 1ST FL Vestibule | 6- Recept. Basement |
| 2nd FL Conf. RM. | |
| 7- A/C Condenser unit outside | 8- Heater in main Hallway S |
| 9- Rear of House | 10- Spare |
| 11- HTS 1ST FL. Red Cross STAFF OFFICE, | 12- HTS 2nd FL Bath RM, Cont |
| Clara Barton OFFICE, Dining RM. | Library, and Recept. Library |
| 13- HTS, 2nd FL, Clara Barton | 14- HTS. + Recept. 2nd FL Vault, + |
| Bed Chamber | and Hartman Dining RM. |
| 15- Overhead LT main Hallway, Table | 16- Step LT. in main Stairway, R |
| Recept For lamps Vestibule and main Hall | Book Store |
| 17- Hot water Heater | 18- HTS. + Recept. 1ST FL Vault |
| | Book Store |
| 19- Basement | 20 Battery Pack in Basement |

End of Electrical Systems Testing Report

Blank Sheet

Historic Architecture Program
National Capital Region
1100 Ohio Drive, SW
Washington, D.C. 20242

Prepared By:
Oehrlein & Associates
Architects
Washington, D.C. 22036

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